

TALK OF TECH

A FIELD GUIDE TO
CAMPUS

RESEARCH

A CONVERSATION WITH
CHICKENS

FEATURE

A DAY AT THE
VET'S OFFICE

GEORGIA TECH

A L U M N I M A G A Z I N E

VOLUME
90
NO. 1
2014

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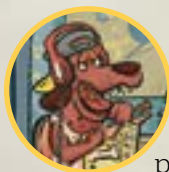
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Tech's researchers look to the animal kingdom for inspiration in improving human lives and designing advanced robotics.

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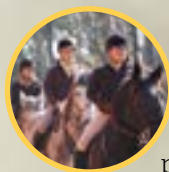
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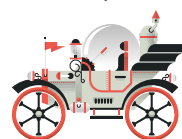
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Helping animals in need grows from a hobby to a life's work.



Celebrating Man's Best Friends

One of my favorite bumper stickers reads, "Be the person your dog thinks you are." It's an amusing but powerful sentiment that says much about the role animals play in our lives.

Humans and animals have lived side by side for tens of thousands of years, but we've only begun to scratch the surface in understanding our fellow inhabitants of Earth. Studying the ways animals behave, move, feed, breed, create communities and interact with their environments can allow us to access deeper insights into our world—ideas applicable to biomechanics, health, nutrition, neuroscience and so much more.

Pet owners, of course, already know how much animals benefit us by sharing our homes and lives. Georgia Tech has a special relationship with the animal world, with creatures like Sideways the dog and Stumpy's bear being a big part of our campus lore.

In this issue, we take a look at the relationship between humans and animals. We'll meet alumni and students deeply involved in animal husbandry, training and care, such as Tech alumna and veterinarian Linda Ellington (pg. 50). We'll take a look at some groundbreaking animal-related research efforts underway at Tech, including a world-spanning effort to use certain species of fish to save endangered coral reefs (pg. 14). And we'll explore the long tradition of Tech



students sneaking pets into campus dorm rooms, rules be damned (pg. 18).

I hope you enjoy this special animal-themed issue of the *Alumni Magazine*. Now, if you'll excuse me, a certain husky needs a walk.

A handwritten signature in black ink, appearing to read "Joe Irwin".

JOSEPH P. IRWIN, IM 80
PRESIDENT & CEO
GEORGIA TECH ALUMNI ASSOCIATION

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I want to compliment you on the excellent edition of the Alumni Magazine [Vol. 89, No. 3]. I'm so happy to see the inclusion of arts in relation to Tech's traditional STEM focus. I'm sharing the issue with colleagues here who often wonder how to bridge the space between arts and science/tech."

Rhonda Phillips, MSEcon 92, PhD Arch 96, dean of the Honors College at Purdue University



Kitten Still Purrs

I enjoyed the Angry Kitten article [Innovate, Vol. 89, No. 4], because it represents the latest iteration of a device designed by my friend, John Louth, EE 67. He scrambled SAM radar to save the pilots of the F-4 Phantom over Vietnam. I'm proud to call him friend and proud of our Tech heritage and our joint service in the Air Force.

W. Michael "Mike" Field, IM 66, MS IM 71
Martin, Ga.

Pining for Drownproofing

Did you have to remind us that Tech foolishly abandoned one of its most memorable and valuable traditions, drownproofing, 25 years ago [Time Machine, Vol. 89, No. 4]? Oh well, soon all of us that remember it will be gone.

Bill Brockman, GM 73
Atlanta

Ticket Stubs Identified

The ticket stub on the left ["Recognize These Stubs?," Vol. 89, No. 4] is from 1951 and the one on the right is from 1949. Georgia Tech ticket stubs are now being cataloged on a great website, georgiatechticketstubs.com.

Michael John Rafferty Jr., EE 02
Niceville, Fla.

Surveillance: How Much Is Too Much?

In the @Issue section of Vol. 89, No. 4, Chris Klaus, Cls 96, questioned whether greater limits should be placed on government spying. Readers continued the debate over email and at gtalumnimag.com.

In Chris Klaus' article he states that 4 million government employees have top-secret clearances. That would be difficult to attain since there are 2.5-2.7 million government employees and only a small percentage have top-secret clearances. *USA Today* estimates 1.4 million total top-secret clearances—for government, military and contractors—but 4 million is clearly wrong. There are much larger estimates for the category "confidential/secret," but neither of those classifications would gain a person access to NSA data.

I was amused that Mr. Klaus thought the U.S. "justification that it can spy on foreigners" makes it easy for China, Russia and others to justify their spying. Those totalitarian governments do not justify their spying. They are going to do it even if we lead by example as Mr. Klaus seems to want us to do. I agree that there should be limits on the analyzing of domestic data, but if we stop spying on countries who spy on us, we will be the ones at a disadvantage.

Carl Wylie, MS IS 70
Annandale, Va.

In a sense, [Edward] Snowden was like Paul Revere, warning Americans of an invasion of our privacy.

The danger is that even if the threat of terrorism subsides, you can be sure that—having spent billions on developing an all-encompassing network—they will not dismantle it. It will be "repurposed" to who knows what nefarious end.

The military-industrial complex is being superseded by a military-informational complex. Snowden is not the first patriot to sacrifice himself on the altar of freedom—nor will he be the last.

Phil Reimert, IE 54
Manhattan Beach, Calif.

Klaus responds:

My point was that the Constitution protects liberty and justice for all. The U.S. Government has justified it can spy on all the world—not just specific foreign government targets, nor just suspected terrorist—including millions of U.S. citizens. This weakens the security of our IT industry and backdoors the foundation of trust. Because of this, we are losing the moral authority to lead. And this in itself is a serious disadvantage. I agree with Mr. Reimert that we need to hold our officials accountable and ask them how we properly balance between threats and protections outlined in our Bill of Rights.

Want to get in touch? Send letters to: Editor, *Georgia Tech Alumni Magazine*, 190 North Ave. NW, Atlanta, GA 30313, or editor@alumni.gatech.edu. Comment at gtalumnimag.com or at facebook.com/georgiatechalumni. View our letters to the editor policy at gtalumnimag.com/letters-policy.



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Around CAMPUS



Fifth Street Bridge, Then and Now



This 1950 Georgia Department of Transportation photo shows the Fifth Street bridge (seen from the south) while the connector was under construction.



Today, the Fifth Street bridge connects campus to Midtown and Technology Square, which just celebrated its 10th Anniversary.



A Field Guide to Campus

✉ Rachael Maddux

Though situated smack in the middle of a major metropolitan area, the 400 acres of Georgia Tech's campus house a bevy of wildlife, from the ordinary (squirrels!) to the unexpected (fancy chickens?). Here's a closer look at some of the most commonly sighted creatures, from the humans that know them best—campus groundskeepers and safety officers.

Gray Squirrel (*Sciurus carolinensis*)

Tech generally takes a live-and-let-live approach to squirrels (one of the most common wild species in the Southeast), but occasionally they require individual attention. Donna Chronic, a horticulturist in the Landscape Services department, once came upon a squirrel stuck in a

dumpster drain hole, a la Winnie the Pooh: "Due to the quick thinking of a variety of Georgia Tech employees and a little Pam sprayed on his fur, he wriggled his way out before the big truck took the dumpster away."

Virginia Opossum (*Didelphis virginiana*)

Opossums have an appetite for garbage, so groundskeepers often encounter the marsupial while changing trashcan liners. An especially voracious—and tenacious—opossum, first encountered on the Biotech Quad, was nicknamed "Peanut." "Peanut was found in several other cans in the quad area over the following days," says horticulturist Michael Walsh. "Plenty of head shaking around the shop resulted from Peanut. A laminated sign was even made to place on trash cans where a possum was found, informing passers-by of the potential for crossing an opossum."

Mockingbird (*Mimus polyglottos*)

In a matchup rivaling any tilt on Grant Field, *Alumni Magazine* editors have more than once witnessed a duo of scrappy mockingbirds dive-bombing



the BASELINE

40

Recommendations made to the White House by a task force on U.S. intelligence operations that included Tech professor Peter Swire.



4

Billion years ago that life arose on Earth, potentially through self-assembling molecules, which Tech chemists have shown to be possible.

East Campus's resident bird of prey, a red tail hawk (*Buteo jamaicensis*).

Gray Fox (*Urocyon cinereoargenteus*)

"We have seen foxes running around at night," says Alex Gutierrez, a crime prevention officer with the Georgia Tech Police Department. "One was spotted during the day by the Habersham building on Marietta Street. As well, there was a small family of foxes occupying the glade area by the president's home. They are usually scared of us more than we are of them." When foxes are spotted, Gutierrez calls up Tech's Environmental Health and Safety office. "Depending on the situation and animal, they will call a trapper and have it released in a forest far from campus."

Silkie Chicken

(*Gallus gallus domesticus*)

Lisa Broadhurst, an environmental health and safety biosafety officer, says most calls about animals on campus come from Tech police officers like Gutierrez—including one report about five fancy chickens roosting in Burger Bowl. "They were so cute," she says. "The guys [sent to collect them] had them all by the feet, and they weren't saying

a thing." The birds went to live at the home of a campus groundskeeper.

Copperhead Snake (*Agkistrodon contortrix*)

"We deal with the poisonous snakes because they're a potential hazard. Non-poisonous snakes, things like that, we try to leave alone," says Broadhurst. "We've only had one call for a poisonous snake, a copperhead. And in this area, that's not surprising to me."

Eastern Box Turtle (*Terrapene carolina*)

"We've never actually had a turtle call," Broadhurst says. "People pretty much leave them alone—they're used to them." ▲



OF COURSE: OH, RATS

BMED 6740: Living System Modeling and Analysis



Instructors: Robert Guldberg, Laura O'Farrell, Nick Willett

Objectives: "To introduce engineering graduate students to living system models as pre-clinical test beds for a wide variety of biotechnologies. Students will learn when in vivo studies are useful, how

to select an appropriate model system, and how to design in vivo experiments. The course will also cover animal welfare regulations and safety requirements."

Prerequisites: Completion of online training modules including "Working with Rats in Research Settings" and

"Post-Procedural Care of Rodents."

Final Project: "Write a shortened NIH format grant proposal in which you select an in vivo model, formulate specific hypotheses, and design experiments to perform pre-clinical testing of a biotechnology of your choice."



Reef Madness

 Andrew Moseman

Algae-crazed fish are key to saving threatened ecosystems.

Coral reefs are some of the most diverse and irreplaceable ecosystems on the planet, and at times the woes they face seem too big to fight: climate change, pollution, ocean acidification, overfishing and more. But Georgia Tech's Mark Hay has spent the past four decades studying how interactions between seaweed, fish and coral shape the success or failure of a reef—and besides illustrating the dynamics of these ecological marvels, his work could show how to save them.

"I started this in the late 1970s, when we had coral reefs in the Caribbean," Hay says. "Now I would argue we have sort of algal-covered parking lots with a few corals here and there." Back then, he says, the average Caribbean reef had 50 to 60 percent coverage with live coral. Today, it's more like 5 percent. "I have two kids in their late 20s," Hay says. "I can't show them an average Caribbean reef that existed when they were born."

Fiji, where Hay does much of his research, has experienced declines, though not as dramatic.

Over-fishing has removed fish that consume seaweed, which then overgrows coral. Some seaweed produces coral-poisoning chemicals, Hay has found. "Think of [the seaweed] as little toxic paintbrushes," Hay says. But certain reef-dwelling fish love to chow down on seaweed, keeping the toxic plants in check; finding these fish—and protecting them—is the crux of Hay's research.

In one experiment in the Caribbean, Hay mixed and matched different kinds of reef-dwelling fish and let them loose, finding that out of the 29 fish species, only

four types ate macro algae. One kind of fish in particular loved to eat a highly toxic green algae. "It would just start shaking it was so excited. You see them in pair, or sometimes in a group of four, and it just looks like they're getting ready to rob Baskin Robbins," Hay says.

In another study, he observed the goby, a small fish that lives its whole life inside one coral. Hay found that as seaweed encroached, the coral would secrete a "chemical 911 call" that told the minuscule multicolored fish to come to the rescue. The goby "act like little hedge trimmers that just trim this toxic algae back enough so it doesn't touch its coral," Hay says. "They really defend their home."

The loss of any of these seaweed-eating species would be especially devastating. Hay's research has helped pinpoint which creatures are especially crucial to the reef's overall health, which helps him in working with local leaders to shape fishing regulations and establish marine protected areas. In Fiji, for



example, "We wear a [tribal] dress, sit on the floor and drink kava with the chief and tell him what's going on, and then he and his head men talk about it," Hay says. "It works really well."

As a result of these efforts, Fiji's protected waters range from 40-60 percent coral cover, while nearby areas have only 4 to 19 percent.

"In the areas that had intact food webs, coral recovered," Hay says. "In the areas that didn't, corals got traded for seaweeds. It's clear that, at present, this kind of intervention can have a huge impact." ▲



the BASELINE

400

Applicants admitted to the first cohort of the College of Computing's MOOC-based Master of Science in Computer Science program.



5

Amount, in thousands of dollars, that Tech won to create a system to donate leftover food from campus dining halls.

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What the Cluck?

📞 Osayi Endolyn

Tech researchers learn that chickens have something to say.



When it comes to chickens, Wayne Daley has one rule: Don't name them. The principal research scientist at the Georgia Tech Research Institute has spent a lot of time with poultry over the past couple of years, but he keeps his feathered subjects at a distance. "You don't want to get too close to them," he says.

Still, he may know more about these birds' wants and needs than just about

anyone. Daley and University of Georgia scientists Bruce Webster and Casey Ritz have been trying to assess the well-being of chickens using an unlikely (but abundant) data source: the sounds they make.

Daley says poultry farmers have long maintained they can tell when something is awry within their flock: "The question for us was, just what is it that farmers are hearing?"

"If you have a flock of birds containing many hundreds," Webster adds, "that may produce a general sound environment that may reflect the actual experience the birds are having."

UGA provided chatty chickens and expertise in poultry behavior; Georgia Tech brought in recording equipment, software and the ability to measure results. Daley and Webster work in six-week



the BASELINE

550

Partners and participants in HomeLab, a Georgia Tech Research Institute project to test health, wellness and aging technologies.



10

Width, in nanometers, of an antenna developed at Tech that could be used to create a network of tiny machines.

periods because that's the lifespan of these chickens (broilers, which are headed to market as soon as they're large enough for commercial consumption). But that's plenty of time to record data on how the birds fare during different experiments. The researchers have looked at temperature deviation, humidity levels, ammonia concentrations and the spread of disease to analyze how those factors may track against the sounds the collective bird population emits.

Daley laughs when asked how much information an experiment yields: "It's just a lot," he says. Recording devices are installed in the chicken houses and left on 24/7 at 48,000 hertz, or 48,000 times per second. Part of the challenge with the resulting data, Webster says, is isolating the poultry musings from everything else: fans, ventilation systems, external noises. Unlike the human ear, audio software doesn't make those differentiations, so a great deal of time is spent separating chicken sounds from the surrounding din.

Cameras installed around the chicken house provide context, too—an added tool to ensure that researchers understand when the flock is comfortable, and what happened in the environment when the flock is distressed. "Sometimes [unusual] things will pop up in the recording, but we don't know why," Daley says. "With the cameras, we can go back to those times—maybe somebody was installing equipment, for example."

This bird vocalization project is one of several funded by the Institute's Agricultural Technology Research Program, which just celebrated 40 years of performing engineering research and development for the poultry industry, one of Georgia's biggest cash cows. (Growing chickens and related food-processing industries have an estimated annual impact of more than \$18.4 billion statewide.) Other projects include using robotics to automate deboning processes and developing fertility detection to predict when an egg will hatch.

Daley, Webster and their teams aim to quantify and one day automate what farmers have sworn by for years. And once the data is analyzed, Daley hopes GTRI will have enough information to build and license a prototype noise-measuring device that could alert farmers when flocks are not in their optimum state. "Once we can tell when the well-being of the animals is compromised," Daley says, "the idea would be to notify farmers and then address issues before they affect productivity."

Daley says the team wants to turn their research into a smartphone app, and Webster can see similar technology being incorporated into a flock-tending robot.

For now, farmers will keep watch over their chickens the old-fashioned way: monitoring feed and water consumption, tracking ammonia levels and temperature profiles. Soon, Daley hopes, this research will add another level of expertise to the poultry caretaker's intuition when something is not quite right. ▲



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- 2/18 **Georgia Tech Jazz Ensemble**
- 2/20 **Georgia Tech Symphonic & Percussion Ensembles**
- 2/20–21 **Margaret Guthman Musical Instrument Competition**
- 2/21 **Poetry@Tech** hosts poets **Jeffrey McDaniel** and **Vivek Sharma**
- 2/22 Georgia Tech Pulse presents **Classical Indian Dance Competition**
- 2/23 **Georgia Tech Symphony Orchestra**
- 2/27–3/1 **Black Box Comedy Festival**
hosted by **DramaTech**
- 3/1 **Carolina Chocolate Drops**

Open throughout Festival:

- Clough Art Crawl** student exhibition at Clough Undergraduate Learning Center
- Engineered Art** international sculpture exhibition across campus
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- Poetry On and Off the Page**
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The Tech Arts Festival is sponsored by the Office of the Provost, the Council of the Arts and the Office of the Arts.



Hedgehog Confidential

✉ Austin L. Ray

No pets allowed? Think again. These alumni broke the rules and lived to tell the tail—er, tale.

Georgia Tech's residence hall pet policy is fairly reasonable and cut-and-dry: Citing health, sanitation and noise concerns, it specifies that "pets of any type may not be kept in the residential areas with the exception of fish in the proper aquarium facilities." But some students just can't resist a furry face. We caught up with a few former Tech pet rebels to get their stories and advice (all of which is completely ill-gotten, and which you definitely should not follow).

Tech pet rebel: Lynn Kinnaman, IE 81, a Home Depot senior engineering manager in Alpharetta, Ga.

Her story: "I was a sophomore in industrial engineering, and it was early 1979. It was a Pekingese and her name was Princess. She lived with my mom, but I brought her to the dorm for two weeks while my mom went on vacation. I had hoped to keep the dog longer if I could get away with it."

Busted? "I was a little worried that someone might complain if she barked. But most of my floor mates loved having her there. It's lots of fun to have a puppy



around and relieve some stress!"

Words of Wisdom: "Try it! It's fun!"

Tech pet rebel: Ginny McSwain, Phys 99, a physics professor at Lehigh

University in Bethlehem, Pa.

Her story: "It was during the fall of my senior year that my roommate Lili had several hamsters. I don't know where she got them. I think the first one was named



the BASELINE

1

Amount, in millions of dollars, of a grant to Tech to study an injectable therapy for rotator cuff injuries.



28

Neutrinos originating from outside our solar system captured in a block of South Pole ice and analyzed by Tech researchers.

Freddie. When he died, she got two more to replace him. Those two also died pretty quickly. I remember Lili being very upset over the deaths. When the last one was sick and near death, we tried to revive it by warming it up with a hair dryer. Of course we failed, but we were trying anything to help Lili feel better!”

Busted? “No, I don’t think so. We lived in ULC 233, which was a seven-person apartment with private bedrooms. She kept the cage in her bedroom.”

Words of wisdom: “Stick with something small so it can stay in a cage or tank. Avoid smelly pets, or at least keep the cages very clean so they don’t smell. A lot of people use hamster bedding made of cedar, which has a strong and distinctive smell, too. You don’t want an RA catching a whiff of the pet smell out in the hallway.”

Tech pet rebel: Jenn Selby Swanson, Arch 01, an architecture designer living in Baltimore, Md.

Her story: “It was sophomore year, 1998-99, fall and winter quarters. My sister’s neighbor bred hedgehogs, and I fell in love with them. They are so unusual! I initially named him Hercules, but when my good friend at Tech had to watch him off campus for the weekend, she nicknamed him Fat Bastard [after the *Austin Powers* character] due to his foul and unfriendly demeanor. The name stuck. He was a complete curmudgeon, but he had an adorable face, which won most over.”

Busted? “Not even once. We weren’t an unruly bunch in Center Street, so I never worried about staff coming in. I honestly never thought about it. He was in a cage, didn’t bark, and didn’t smell. Totally low maintenance.”

Words of wisdom: “To quote George Costanza, ‘It’s not a lie if you believe it.’ A bit of an analogy stretch there, but still applies. Just bring your pet into your dorm like you would any other personal item like it totally belongs. No one will be the wiser.” ▲

TECH PET HALL OF FAME

Tech has played home to an odd assortment of critters over the years. Here are a few of the most memorable.

Stumpy’s Bear

When the Yellow Jackets ventured to California for the 1929 Rose Bowl, football players Jack “Stumpy” Thomason, Cls 30, and Bob Randolph, Cls 29, returned with a black bear cub. The bear, called Bruin, lived with them near campus. It was known to ride in the back of Stumpy’s car and to drink as many as 20 Cokes at a time at the local drug store, but it also was arrested for scaring residents and drunk and disorderly conduct. The bear went with Stumpy to Buffalo, N.Y., where Stumpy coached a team called, of course, the Bears.



Clifford

Joe Auer, Cls 64, bought a lion cub and kept it on campus. The cheerleaders for the Northside High School Tigers painted stripes on Clifford and used him as a fill-in for their mascot.



Alvin A group of students living off campus in the 1960s bought a goat to help keep their lawn

trimmed; they never saw it eat but the lawn stayed short. Finally, one resident saw the goat eating late at night. This spawned a phrase that became popular among Atlanta’s hippies: “Goat Eats Grass at Night.”



Sideways

After being hurt in an accident, the terrier was adopted by Tech students and lived on campus from 1945-47. Students still visit Sideways’ grave on campus.



Socrates

Professor Daniel Fielder, MS EE 48, PhD EE 57, kept his dog with him on campus from 1965-81. He buried Socrates on the lawn of Van Leer Building.



Queen

Elizabeth In the 1910s, the football field keeper housed a pet mule underneath the stadium’s east stands. No, we don’t know why he did this.



Woo

John Heisman had a soft spot for his pet poodle. It’s said Woo ate ice cream every night.





The Library of Tomorrow

✉ Tearanny Street and Van Jensen

The Georgia Tech library embarks on a digital renewal.

One afternoon late in the fall semester, the first floor of the Georgia Tech Library was crammed tight with students madly working at computers to finish final projects (or taking quick Facebook breaks). But upstairs, amid the stacks of books that take up much of the library's physical space, the halls and desks were all but empty.

The difference between the two parts of the library reflected the broader shift in information consumption from print to digital. And in keeping with Tech's mission to define the research university of the 21st century, the library has begun an effort to renew its role and purpose on campus.

That process, which will take place over the next five years, will see the majority of the library's print collection transferred to an off-site facility shared with Emory University Libraries. The facility, known as the EmTech Library Service Center, will be designed to ensure the long-term preservation of, and access to, paper and microfilm collections. It will be located on Emory's Briarcliff property, and the materials housed there will be available to faculty and students of Tech and Emory.

"We are moving away from concentrating on housing the physical collections to providing innovative services and inspirational spaces for new generations of faculty and students," says Catherine Murray-Rust, vice provost for learning excellence and dean of libraries.

The Library Renewal project, which kicked off in November, calls for a re-imagining of all aspects of the library's role on campus, from its research services to its collections. The Board of Regents recently approved a request for \$1.7



million in design funds from the state to renew the Price Gilbert Memorial and Crosland Library towers. The Institute also is contributing \$2.3 million.

"Research libraries across the globe are undergoing transitions similar to what we're preparing for here at Tech," says Murray-Rust. "Changes in pedagogy, learning styles and scholarly publishing allow us the freedom to re-imagine the way we deliver library services and support research."

Tech's library was originally housed in the Carnegie building and held 16,000 books. The collection grew to 450,000 volumes by 1953 under the direction of Dorothy Murray Crosland, the director of libraries and namesake of Crosland Tower. Crosland traveled the world to acquire materials. It now holds millions of books, periodicals and serials.

But in recent years, the print collection has experienced a precipitous decline in usage, while visits to the physical facility and uses of the electronic collection have risen substantially. Visits to the library increased from 572,769 in fiscal year 2002 to 1,358,387 in fiscal year 2013.

"We're seeing a higher gate count than ever before, but the vast majority of the print collection is underutilized and taking up valuable space at the center of campus," says Ameet Doshi, user experience librarian. "Once collections are relocated, there will be a singular opportunity to redefine the role of a research library from a repository of print materials to one of providing ubiquitous and unique research services. We are looking to campus for ideas on innovative ways to help us redefine the research library for the 21st century." ▲

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† Specialty departments vary by club.



Guardian Cap Protects Players



→ **What is it?** A soft-shell cover for football helmets that reduces the impact of collisions. **Who made it?** Lee Hanson, ChE 84, founder of the Hanson Group, and his family. **What inspired it?** Hanson sought to create a device to help prevent concussions among football players. **Why is it game changing?** Tests show the Guardian Cap reduces the impact of hits by 33 percent. More than 300 teams have adopted the cap, and 20,000 players now wear one.

→ **SOYLENT** **What is it?** A meal replacement mix that combines with water to form a nutritionally complete shake. **Who made it?** Rob Rhinehart, CS 12. **What inspired it?** The name comes from the classic Charlton Heston sci-fi film ("Soylent Green is people!"), but the idea came from Rhinehart's desire to create an affordable, simple food source. **Why is it game changing?** Soylent could be an effective tool in feeding undernourished people around the world, but it's also caught on among the tech crowd, as bloggers have documented subsisting solely on Soylent for a week. The startup recently received \$1.5 million in seed funding.



• Rob Rhinehart

→ PITCHMAPS

What is it? A system developed by marketing veterans to incorporate analytics into sales presentation. **Who made it?** A team including brothers Ben and Josh Reed, 2004 management graduates. **What inspired it?** The Pitchmaps team thought that applying more savvy analysis could help companies better engage with customers. **Why is it game changing?** Studies have shown that nearly 90 percent of value propositions presented by salespeople aren't relevant to customers. Pitchmaps shows companies how to create a better message and guidance on how to deliver it.





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Queen Bee

by Van Jensen

For years, Amelia Gambino has been focused on Yellow Jackets. As the assistant vice president of news and campus communications, she oversaw the effort to spread the good word about Georgia Tech. But when Gambino is off campus, she's focused on bees. An avid apiarist, Gambino has served on the board of directors for the Metro Atlanta Beekeepers Association and plans to devote more time to her hives after her recent retirement. She talked with the *Alumni Magazine* to shed some light on her secret life with bees.



Why bees? I was very curious about beekeeping and talked about it all the time. My husband, Tom [CE 79], decided it was time to push me over the edge, so he gave me all the equipment and a beekeeper's suit for Christmas in 2009. Four weeks later, I was taking classes and ordering bees.

What's your setup like? I have three hives but have had as many as five at one time. They're set up in the backyard right at the edge of the woods—close enough that I can see them from the kitchen window but far enough away to not scare guests. Some people get very nervous about the hives.

What's the biggest misconception people have about bees? That they are out to sting you. Not so. Their main mission in life is to protect the hive and their queen. One of my hives is very docile, and one has a bad attitude. It just depends on the temperament of their queen.

What's the biggest challenge of beekeeping, aside from not getting stung?

Getting stung is part of it—not the fun part. The biggest challenge is keeping the bees healthy. Mites, bacteria, hive beetles, dampness, cold and nutrition are all things a beekeeper has to monitor. Colony Collapse Disorder is a real problem, too.

Did that impact you when it was such a widespread problem? Colony Collapse Disorder remains a problem. Is it pesticides, parasites, fungicides or nutrition that causes colonies to die off suddenly? The winter is also exceptionally hard for bees. I've lost a couple of hives over the years to CCD or simply not being strong enough to survive winter. It is pretty common.

Post-retirement, are you going to focus more on beekeeping? Yes, I hope to take some classes and get my Master Beekeeper certification.

What do you do with the honey once you've collected it? No sense ruining a good hobby by making it into a business. We give away the honey to friends

and family. I keep everyone in Institute Communications supplied with honey year round.

How do most people react when they find out about your hobby? They are always surprised and tend to think it is a dangerous thing to do. Interestingly, there are quite a few beekeepers at Tech and several research projects involving bees going on around campus.

How often do you have to clarify the yellow jackets/bees distinction? Throughout my entire career at Tech, I've had to correct people who called Buzz a "bee." Buzz is a *Yellow Jacket*. It doesn't bug me to explain the difference in bees and yellow jackets. It's an opportunity to make the distinction and raise awareness for the importance of honeybees' role in our food supply.

Be honest—would Bees make a better mascot than Yellow Jackets? No! Although very industrious, honeybees can be very gentle. Yellow Jackets are aggressive, resilient and sting like the devil. ▲





✉ Rachael Maddux

The Lizard King

Nine years ago, Joseph Mendelson was settling into life as a freshly tenured professor of biology at Utah State University. But then Zoo Atlanta called and made him an offer he couldn't refuse: a hybrid research/conservation/teaching position linking the resources of the zoo with the brainpower of Georgia Tech. Now the zoo's director of herpetological research and adjunct professor in Tech's School of Biology, Mendelson splits his time between teaching, supervising undergraduate research projects and conducting collaborative research. He also continues with his own field work—he's named and identified upward of 35 species of frogs, salamanders and snakes over his three-decade career. Mendelson recently guided the *Alumni Magazine* around his workspace, which spans across the zoo's 40-acre campus.



▲ Mendelson's favorite creatures in the zoo's reptile and amphibian exhibit are the super-shy *Incilius signifer* (which he discovered and named) and a 3-foot-long salamander called the Greater Siren. The eel-like creature was thought to be carnivorous until a Zoo Atlanta employee noticed it chowing on plants in its tank;

tests confirmed it was omnivorous. "There's a fundamental piece of the natural history of an animal that is really common all over Georgia that we just didn't know, except by keeping our eyes open," Mendelson says. "It's like being an astronaut every day—'Ooh, I found something new!'" (Here, he poses with a boa constrictor.)

► For Mendelson's students, the zoo becomes a living laboratory. "In vertebrate anatomy, if we're looking at muscular-skeletal function, well, we could sit in a room at Tech," he says. "Or we could go to the zoo and be like, 'OK, let's watch the elephant sit. What muscles is it using?'" Members of his independent research class use the zoo facilities to conduct research that informs their senior theses. "Georgia Tech students," he says, "are getting opportunities that you can't get at any other school."



▲ "Sometimes," Mendelson says, "you find new species by turning over a rock and going, 'Oh, that's new!'" Other times, it's not so easy. In his lab at the zoo, Mendelson spent the fall studying preserved toad specimens (some more than 100 years old) collected from across Nicaragua, unconvinced that they were all the same species. "Sometimes you realize, 'We thought they were all the same thing, but they're not.' That's a different way to discover a new species. It's the harder way. It's not the most exciting way. But that's what I'm doing."



◀ The benefits of Tech's relationship with Zoo Atlanta extend to fellow faculty. Mendelson has access to creatures prohibited on campus by Tech's research guidelines—like the venomous sidewinder rattlesnake. This sandbox was home to snake locomotion experiments. (For more on that, see pg. 62.)

▼ On slow days, Mendelson admits to slipping away from his work to visit the goats at the petting zoo. "I have the key for everything, but I don't go wandering around in departments that aren't mine," he says. "It's not like, 'Oh, I'm gonna go play with some pandas now.'" ▲





The Stalwart

Daniel Miller's game has never been flashy, but the redshirt senior center's shot blocking and rebounding have long solidified the Yellow Jackets' defense.



Why did you come to Tech? I wanted to play a high level of basketball and receive a great education. It's also close to home [Loganville, Ga.]. After five years here, I've accomplished both of those.

What's your favorite memory with the Yellow Jackets? I was redshirting the year we beat Duke at home. I remember it like it was yesterday. Everybody on the team did what they were supposed to do. We played a different defense than we normally did, and it worked very well.

Do you have any hobbies outside of basketball? I go fishing a lot during the off-season, and I hunt once or twice a year. My brother and I fish in little lakes around Loganville. My grandparents have a place at

Allatoona Lake. We also go fishing in the summer with my Dad out in Wyoming. Last summer we went shark fishing in Florida. I've hunted for deer and hogs, and I got an antelope in Wyoming.

What's the most interesting class you've taken at Tech? Earth and atmospheric sciences. There are a lot of hands-on labs and experiments.

What's your favorite music? Country. I like Kenny Chesney and Tim McGraw. I like it best in the summer time, listening at the beach or whatever.

What are your post-graduation plans? I want to keep playing basketball, wherever that is. After basketball, I have ideas, but I'm not sure at this point.



THE PHENOM

A high school All-American and daughter of NBA star Antonio Davis, Kaela Davis is the top recruit to join Tech's basketball program. And the freshman has shined so far, averaging 18.2 points per game to start the season.

Why did you come to Tech?

I really want to study engineering and make a future out of something more than just basketball. I also love this team, and I know we're headed in a great direction.

What hobbies do you have outside of basketball?

I like to build things—I'm always looking for something really big to build. That was probably a lot easier at home, where I have the space, not in a college dorm room.

What's your favorite book?

The Last Lecture. I think you can read that book over and over but get something new from it every time.

What are your post-graduation plans?

Hopefully work in third-world countries and improve their technology with the help of other engineers. I would love to play basketball after college as well, but I know that will only last for so long.



the BASELINE

18 Ranking of Georgia Tech's lacrosse team by *Lacrosse* magazine, the team's highest placement on the list to begin a season.



20 Ranking of the Tech women's tennis team to open the season. Doubles team Megan Kurey and Kendal Woodard are ranked No. 4.



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Passing Grade

by Jonathan Crowl

How basketball coach Brian Gregory turned his team into an academic powerhouse.

In 2011, when Brian Gregory was hired as Georgia Tech's men's basketball coach, he inherited a team that had just suffered its third losing season in four years. But the coach's most pressing issue had nothing to do with the team's on-court performance: Poor scores on the NCAA's annual academic progress rate were threatening to dig an even deeper hole for the program. Tech had lost three scholarships in previous years and was in jeopardy of being slapped with additional sanctions.

"It was a big concern of ours when [Gregory] got hired," says Ryan Bamford, Tech's associate athletic director for internal operations. "A school like Georgia Tech, you don't want to be underperforming in academics."

The NCAA's academic progress rate, or APR, is a formula that quantifies each sports program's success to ensure athletes maintain a grade point average of at least 2.6. The maximum APR score is 1000, with 952 being the national average; teams must maintain a 900 four-year APR or a 930 two-year average to be eligible for NCAA postseason play. When Gregory took over, Tech's men's basketball APR was 915.

Gregory first helped his departing senior class improve their grades and graduate on time. As a result, Tech earned a perfect APR score of 1000 for that year.

Gregory's involvement in academics is "above and beyond" the efforts of most other college-level coaches, says Whitney Burton, a senior academic coordinator for the team. The two meet weekly to go over each player's homework, grades and progress in each class. The coach then

helps Burton and other support staff create individualized plans for the upcoming week, including study hall hours and tutoring sessions.

"He is very hands-on," Burton says. "He knows when guys have tests, and he'll text them and say, 'Hey, how was your math test today?'"

Gregory says his commitment to academics stems from being raised by a school principal and a guidance counselor, and from his experiences as an assistant coach at Northwestern and Michigan State. By the time he took his first head-coaching job at Dayton in 2003, Gregory had cultivated a philosophy that targeted success not just in terms of wins, but also in the classroom and at the community level.

"I don't believe in the smorgasbord approach of picking and choosing what you're going to do well," Gregory says. "I'm a strong believer that if a guy isn't doing well in school ... that's going to affect him as a basketball player. And the same thing the other way around."

This holistic approach paid dividends over Gregory's eight seasons at Dayton, where his team won 65 percent of its games and never scored less than 974 on its four-year APR. But implementing that blueprint at Tech required a different approach to recruiting.

"[Tech's] recruiting pool is not the same as other schools," Gregory says. "Do people that are important to [a prospective recruit] emphasize the academic piece? Can he handle the academic workload at Georgia Tech, and has he proven that in his time as a high school student? When

those match up with the on-court product, then we have a strong candidate."

Sophomore Marcus Georges-Hunt fit this profile. One of the team's leading scorers this season, he came from a home where good grades were a prerequisite to playing basketball; along with fellow second-year Chris Bolden, he was honored last spring by being named to the All-ACC Academic team. Georges-Hunt thinks the team's strong relationship with its academic coordinators creates an environment where players are challenged to succeed in the classroom. "If I have questions, they have answers. If I don't understand something, they push me to figure it out," he says. "They stay on top of us, push our team to get our work done."

The results of this culture change have been dramatic: In each of Gregory's first two seasons, the men's basketball team has earned single-year scores of 1000, elevating Tech's four-year score, once worst in the ACC, into the top half of the conference. When APR scores for the 2012-13 school year are published in summer 2014, the team expects another perfect 1000.

"I really don't worry about the multi-year score anymore," Bamford says. "I know we're going to be fine."

Gregory says that while graduation rates and GPAs get all of the attention, it's the day-to-day routines and habits that most determine success. "I hardly ever talk about grades," Gregory says. "I talk about the effort they're putting in on a daily basis. Going to class. Taking notes. Study halls and tutoring. If you take care of that stuff, then you're going to do well enough that you're going to earn your degree." ▲

the BASELINE
60

Percent of field goals made by senior center Daniel Miller for the Yellow Jackets this season, a team-leading mark.

4 80.6

Average points per game scored by the women's basketball team through its first 14 games of the season, compared to 67.6 last season.





Dollars & Sense: Heather McKeen

Van Jensen

As the vice president of facilities and operations at Georgia Aquarium, Heather McKeen, Mgt 95, oversees a remarkably complex space: The aquarium is the world's largest, comprising 604,000 square feet, 8 million gallons of water and 10,000 species of fish and animals. McKeen gave the *Alumni Magazine* a tour of her watery domain.

You originally worked for a contractor helping to build the Aquarium. How does management compare to construction? In my construction career, I worked on prisons, hospitals, technology facilities, office buildings and finally an aquarium. It wasn't until I moved to managing a building that I truly understood how small design changes could make huge impacts in the operational functionality of a facility. Construction projects have a finite end—the primary goal is to complete the project on time and under

focus of my job is strategic planning and budgeting for future capital projects. The most challenging aspect is managing work in a facility that welcomes 2.1 million guests each year and operates 24/7. Even routine equipment shut downs for maintenance is a highly coordinated event between many departments. Surprises can come from any source, from redesigning an animal holding space because the animals learned they can scale the walls, to fixing a 52-inch-diameter pipe that is leaking.

transparent—that will foster confidence in the decisions that are made and create mutual trust and respect.

What do you look for in job candidates? Assuming the technical requirements are met, personality is key. If personalities don't click, it's hard to imagine that individual in the trenches with you when your backs are against a wall. I want to know they will do the right thing—always. It's important to understand how they handle accountability and deal with conflict.

“It wasn't until I moved to managing a building that I truly understood how small design changes could make huge impacts in the operational functionality of a facility.”

budget. Being a part of the senior management team at Georgia Aquarium, the emphasis is now about how we adapt to the changing economy, improving the visitor experience and establishing ourselves in the local community and the aquarium industry so that we are still here 50 years from now.

What are the challenges of managing such a unique physical space? A major

What's your philosophy for managing employees? The key to a successful team is relationships and trust. If you do not build connections with your team members, you will not succeed in breaking down the silos that people naturally gravitate into. An essential aspect in creating a successful team is to have a shared vision, which creates more commitment to the outcome and increases accountability. Lastly, managers must be

How has your time at Tech helped in your career? I learned the basics of project management, which is the basis of my career. Beyond the academic rigors, Tech prepared me to multitask and stay focused under stress.

What's your favorite exhibit or species at the aquarium? My favorite exhibit is the Dolphin Tales gallery. I lived and breathed the design and construction of the project for three-and-a-half years, and I have a tremendous amount of pride in the end product. Surprisingly enough, my favorite species isn't the dolphins—it is the sea otters. Much like the important role a keystone plays in the structural integrity of an arch, sea otters are a keystone species in their ecosystems. They play a vital ecological role in maintaining the health and stability of the kelp forests. And the dexterity and playfulness of the sea otters is mesmerizing to watch and never fails to put a smile on my face. ▲





Gearing Up for a Cannonball Run

Van Jensen

Alum tricks out car for an (illegal) attempt at the cross-country speed record.

Growing up, Ed Bolian, PP 08, loved the *Cannonball Run* movies, starring Burt Reynolds as a mechanic angling to win a cross-country car race. When Bolian learned about the real-life attempts to set the speed record, he decided that one day he'd make a go himself. In 2009, Bolian started planning his attempt at what's officially known as the Cannonball Baker Sea-to-Shining-Sea Memorial Trophy Dash. The goal: Drive from Manhattan to Redondo Beach, Calif., in record-breaking time without drawing the attention of law enforcement officials.

Bolian, the sales director at Motor Cars of Georgia, knew he needed a car that would be powerful but also comfortable and unassuming. "I looked at lots of exotic and mundane options but ended up choosing the CL55 AMG Mercedes due to the fuel economy, forced induction, space and adaptable suspension to cope with the weight [of added fuel]," he says.

But that was just the start. Bolian outfitted the car with an array of modifications, including radar detectors,



laser-jamming systems, navigation systems, a CB radio and a police scanner. In the trunk, he added two 22-gallon fuel cells, which gave the car a total capacity of 67 gallons. The car also went through a \$9,000 tuneup.

At 9:55 p.m. on Oct. 19, 2013, Bolian—along with Dan Huang, CM 11, and pal Dave Black—hit the road. They started in Manhattan. The record to beat? Thirty-one hours and 4 minutes, set in 2006.

The scanner and CB weren't as helpful

as expected—wiring problems—and the antennas flexed too much from the speed of the car, which averaged about 100 mph and topped out at 150 mph. "Having three people fully alert and paying attention to the likely places for police to hide and to monitor other road hazards was the best tool that we had," Bolian says. "There was no small talk, no radio."

At 11:46 p.m. on Oct. 20, the trio arrived at the Portofino Hotel and Marina in Redondo Beach. They had traveled 2,803 miles in 28 hours, 50 minutes and 30 seconds, shattering the record. A GPS company monitored the trip, providing thorough documentation of the record.

Previous record breakers waited a year to publicize their efforts—long enough for the statute of limitations on speeding violations to expire. But Bolian, in keeping with his daredevil nature, wasted no time in breaking the news. His feat has been featured in automotive magazines and on CNN.

"The response has been great and much more positive than we had even imagined," he says. "The idea of that great American road trip appeals to everyone." ▲



THE EQUIPMENT

Bolian tricked out his car with an assortment of tools and gadgets, including everything listed and "a few other things we won't mention publicly."

1. Two Valentine one radar/laser detectors
2. Escort Passport radar/laser detector and diffuser
3. Laser interceptor and laser diffuser/jammer
4. Two Garmin GPS units with XM Radio NavTraffic
5. Three iPhone cradles with chargers
6. iPad cradle and charger
7. Satellite tracking device
8. Uniden police scanner with GPS and radio antenna
9. Cobra 29 CB radio with K40 antenna
10. Toll passes for the pertinent areas
11. Two 2 gallon auxiliary fuel cells with transfer pumps
12. Custom switch panel with kill switch for rear lights, fuel pump control, power to all devices
13. Power inverter with outlets in center console
14. Full-size spare tire
15. Fire extinguisher
16. Full-size hydraulic jack



“We hope our endowment will further Tech’s goal of producing innovators for years to come.”

— *Evelyne M. and Manohar P. Kamat,*
MS AE 1969, Ph.D. ESM 1972, Retired Faculty

Earning the title of Sigma Gamma Tau’s Most Valuable Aerospace Engineering Professor is one of Manohar P. Kamat’s most cherished honors. “I was given a plaque signed by every senior from the 2001 AE class,” said Kamat, noting that his greatest pleasure in academia over the course of three decades was mentoring and advising students.

A native of Panaji, Goa, in India, Kamat studied civil engineering at the Universities of Pune and Leeds. While in England he met his Anglo-French wife of more than 46 years, Evelyne.

A job with Lockheed Martin in Marietta, Georgia, gave Kamat the opportunity to work on intricate and complex aerospace structures for the first time in his career. While employed by Lockheed, Kamat married Evelyne and bought his first car, which for him was a “quantum leap for a man who could not afford a bike in India.” He enrolled in Georgia Tech’s aerospace engineering graduate program and went on to earn a Ph.D. in engineering science and mechanics from Tech.

In 1972, Kamat became a U.S. citizen and was proud to vote in his first election. That year, he also

accepted a teaching position at Virginia Tech. He later joined Georgia Tech’s College of Engineering, where he taught until his retirement as professor of aerospace engineering in 2003. Evelyne, a librarian, has worked at Georgia Tech, Virginia Tech, Emory University, and for the Southeastern Library Network. She currently uses her bilingual skills in NASCAR’s membership department.

As a Georgia Tech emeritus professor, alumnus, former Georgia Tech librarian, and parents to two Tech alumni (Subhash M. Kamat, MGT 1991, and Nikhil M. Kamat, BIOL 1998), Manohar and Evelyne Kamat’s deep connection to the Institute inspired them to establish an endowed fund within the Daniel Guggenheim School of Aerospace Engineering to support a lecture series. The Evelyne M. and Manohar P. Kamat Endowment Fund will be established after the Kamats receive lifetime income from a charitable gift annuity with the Georgia Tech Foundation. The Kamats’ generosity will serve as an enduring testament to their rich history with the Institute and their strong desire to support future generations of aerospace engineers.



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Cloud

Julie Thrasher Stuckey, MgtSci 85



This charming picture book, featuring illustrations by Irena Sophia, follows the adventures of a plucky girl named Lucinda as she learns lessons from her wise grandmother. While a student at Tech, Stuckey (who wrote *Cloud* under the name Mirabelle Butterfield) worked as an assistant for Florence Pettit, wife of then-President Joseph Pettit. “Several of these lessons in the book are tributes to Mrs. Pettit,” Stuckey says. “I learned so much from her—about cooking, flower arranging and kindness, for example.”



Quilt Lab: The Creative Side of Science

Alexandra Winston, Arch 06

Combine your crafty compulsions and your love of science and math with these twelve projects, which draw inspiration from fractals, calculus, chemistry and more.



Sungbook: A Collection of Korean Short Stories

Suil Kang, EE 84

These short stories trace the tremendous changes that Korea underwent in the 1970s through the eyes of a variety of characters living in Seoul's Sungbook neighborhood.



Improbable Women: Five Who Explored the Middle East

William W. Cotterman,
IM 58, MS IM 63

The stories follow five remarkable women in the late 19th and early 20th centuries who made pilgrimages to pay homage to third-century warrior queen Zenobia in the ancient Syrian city of Palmyra.



Choux Temptations

Jialin Tian, PhD ECE 04

From the author of *Macaroon Magic* and *Macaroon Magic 2* comes a guide to the tantalizing and versatile pastry dough known as choux, including instructions for more than 30 dishes, savory and sweet.

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📷 Rachael Maddux

The Glass Menagerie

A (careful) journey into Georgia's biggest alligator farm.

Mark Glass, Mgt 89, didn't mean to become an alligator farmer. After Tech, he worked at a management consulting firm in Atlanta, then in 1994 moved with his wife, Susan, CIs 92, to Camilla, Ga., where her family farmed cotton, peanuts and pecans. The local poultry industry was expanding, so Glass built 20 chicken houses and was soon producing several hundred thousand birds a year. After a while, he added alligators to take care of chicken byproduct.

"Everybody seems to be fascinated by them," Glass says of the gators. "I guess I was no exception." 📷 He started with 1,100 hatchlings. Now, in addition to his poultry operation (pop. 500,000), Glass operates the largest alligator farm in the state of Georgia and one of the biggest in the United States, with upward of 100,000 gators, all housed in climate-controlled sheds. He processes about 50,000 animals every year, their hides sold to the fashion industry, their meat to restaurant suppliers and grocery stores. 📷 "It's a very small industry, and it's highly competitive," says Glass, who recently gave the *Alumni Magazine* a glimpse into the farm's daily operations. "If we don't constantly improve and change our method, then we can't survive. It's very, very difficult to do, but we're doing it and we're doing it well."

My mom didn't understand why I went to all the trouble and expense of getting an education from Georgia Tech if I was going to become a poultry farmer. And then when I started the alligator side she knew I'd lost my mind.

All of the alligators we grow are harvested from the wild. Georgia doesn't have a collection program, so I get all my eggs and hatchlings from other states. We pick up eggs in July, after the mating season, with helicopters and air boats. We put the eggs in incubators and hatch them. Some states don't allow eggs to leave the state, and those we bring back later as hatchlings. And I hatch a lot of eggs myself at the farm, in August and September.

We process smaller animals between September and January, for the watchstrap market. After January we'll start doing the bigger ones, for the shoe and the handbag market. The watch markets want a 20-to-29 centimeter hide. The handbag market wants a 38-to-45 centimeter hide, mostly a 40-to-45. That's gonna be a 2-and-a-half to 3-year-old animal, about six feet long.

We're selling to luxury brands with the highest standards in the world: Patek Philippe, Bulgari, Constantin, Cartier, Hermes, Louis Vuitton, Chanel. People

are buying the products where they probably don't even look at the price. They want absolute flawless skins.

When I first got in the business, you could have bite marks and scratches on the hide and still be a grade one. Now, grade one is flawless perfection. If there's anything that's not perfect on that skin, it's a grade two. Clients will only buy a small percentage of grade twos. You basically have to be growing perfect, flawless skins as the majority of your production or you don't stay in business. If you don't have a flawless product you have nothing to sell. It's difficult, and very few people in the world do it well. Most alligator farms have gone out of business. There are probably six to 10 true alligator farms in the United States.

There's no forgiveness. If one animal gets upset, he's going to bite the next guy, and then they're all gonna start fighting and biting. A bite mark never goes away. Any defect, any scratch, any abrasion will show up on the hide as a scar and will be a defect and a downgrade.

I probably haven't been bit as much as I should, considering how many alligators we handle. They're lightning fast, like a rattlesnake. And their jaws are so powerful—they can bite right through something and crush it. You can't even pry their mouth open with a crowbar. If you're careless or reckless or daydreaming or scared, you're gonna get hurt. Even the small ones can hurt you.

📷 **Know a Ramblin' Wreck with a fascinating job?** Tell us all about their interesting career at publications@gtalumni.org.



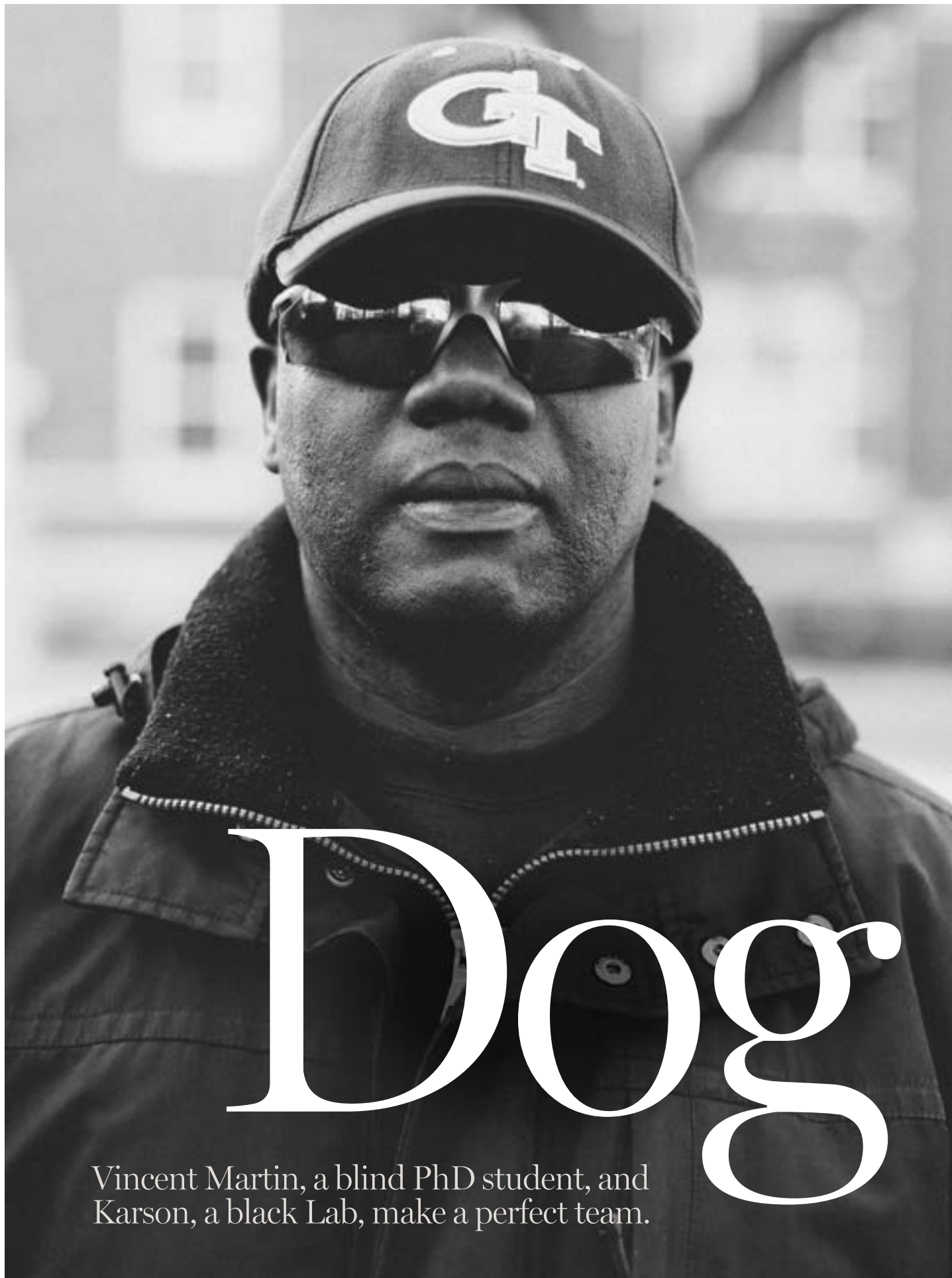
• Clockwise from top: Three of Glass' 44 alligator sheds. Glass holds a 1-year-old gator. A Glass Enterprises employee inspects a hide for scratches. Inside a shed, behind the doors, are gators.



You need to keep the gators happy from day one. That means having the right stocking densities, the same size alligators in the room together, the

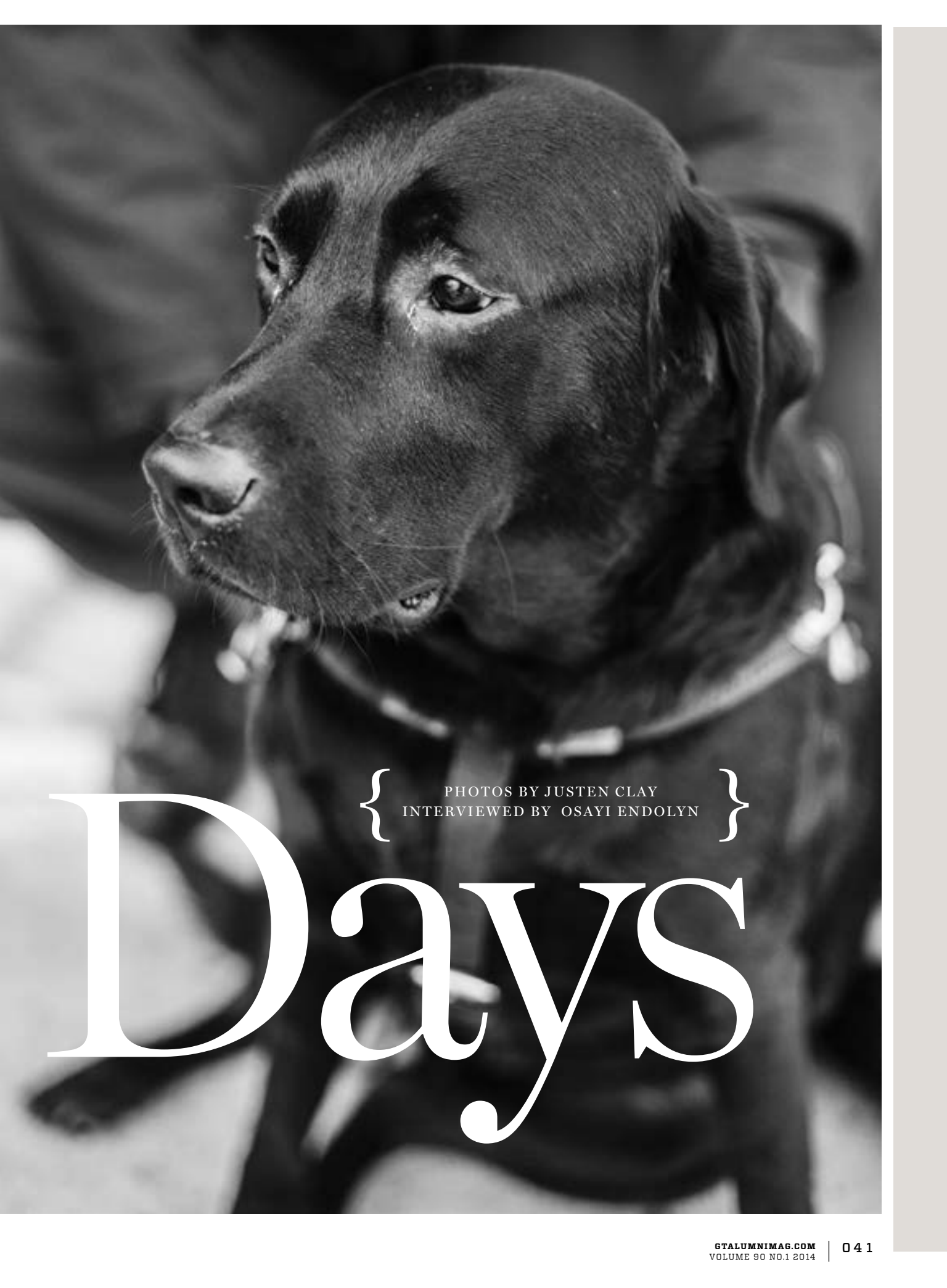
right water depth, the right temperature, the right feed (mostly animal protein, either poultry or fish, and a lot of blood meal). The pen design is

critical—having the right lighting, the right shape of the room. Having everything right, seven days a week, 365 days a year. ▲



Dog


Vincent Martin, a blind PhD student, and
Karson, a black Lab, make a perfect team.



{ PHOTOS BY JUSTEN CLAY
INTERVIEWED BY OSAYI ENDOLYN }

Days





Blinded at 23 by a genetic eye disease, Vincent Martin—a former Paralympic track-and-field star, now a human-centered computing PhD student at Georgia Tech—at first relied on a cane to navigate his daily life. But, in 2011, he realized he needed more help. Enter Karson. Martin and his trained service dog are a symbiotic team: With the black Labrador helping guide the way, Martin moves through campus, between classes, labs, research sessions and workouts at the Campus Recreation Center on a rigorous schedule—one that also includes playtime, obedience training and lots of walking for Karson. Their day starts at 4:45 a.m. Just try to keep up.



Guiding the Guide

People think the dog is telling you what to do. In actuality, I'm mostly telling him what to do, and he's following my commands. He gets a combination of commands via hand, voice, and how I control the leash. As soon as I put my hand on his harness, he perks up—he knows we're ready to move. When I drop the harness, he calms down.

They say dogs can learn an infinite number of commands, and I believe it. Karson now has a command called "Inside." If there's a

building that we came out of, he'll find the door and go back to it.

Karson stops at all doors, and when it's a double door he goes to the door on the right. But if someone has a door on the left open already, Karson will go to it. If the person holding the left door doesn't say anything, they mess me up. Karson will go straight through the open door and won't slow down, and I'll realize it at the last moment and pull my other arm in so I don't hit the door.





Refueling & Playtime

At 4:30, he eats his second meal of the day, din-din. If he's asleep under my chair like he should be, at 4:25 he wakes up. Right on the clock. He gives me hell for five minutes—putting his head on my knee, up and down on my shin. Finally at 4:30 I say, “OK, you win!” Everybody in the lab starts laughing. I reach up and get his bowl and I have his food in Ziploc bags. He knows when it's din-din time.

Karson, by law, can go anywhere with me except a sterile environment. When we're running a study, I usually put him under the table and tie him up, then put my foot on his leash. We call that controlling the head—if I can control his head I can control most of him.

He's very welcome on campus. I've found that because so many students have had to leave their dogs at home, they just melt when they see Karson. Most people know the rules, to not pet him unless I take the harness off. The harness means he's working.

At the end of every semester, I take him off leash on the last day of class and let him play with everybody. Occasionally I forget, but they won't let me. They play with him, he jumps on folks. They have a ball.

Sometimes people see Karson get on the bus and they're alarmed, but the driver tells them the dog is fine. I've had only two people in two-and-a-half years either have to go out the back of the bus, or just couldn't go past him, so I'll get off and let them exit.

Care & Keeping

We like to say it's like having a continuous 3 year old. There's a part of me that's always thinking about what he's doing. I'm 100 percent responsible for his well-being.

I have a water bowl everywhere on campus. There's one in the lab, one in my locker at the gym. I keep extra food in my gym locker.

I keep a rain coat for him in my bag at all times—it was custom-made for him.

I like to walk, and I can do that because I have Karson. We can get up to four miles per hour. Before Karson, it was too hard to walk like that—it's a real cognitive load to use a cane. Plus, he needs to walk two to three miles per day.





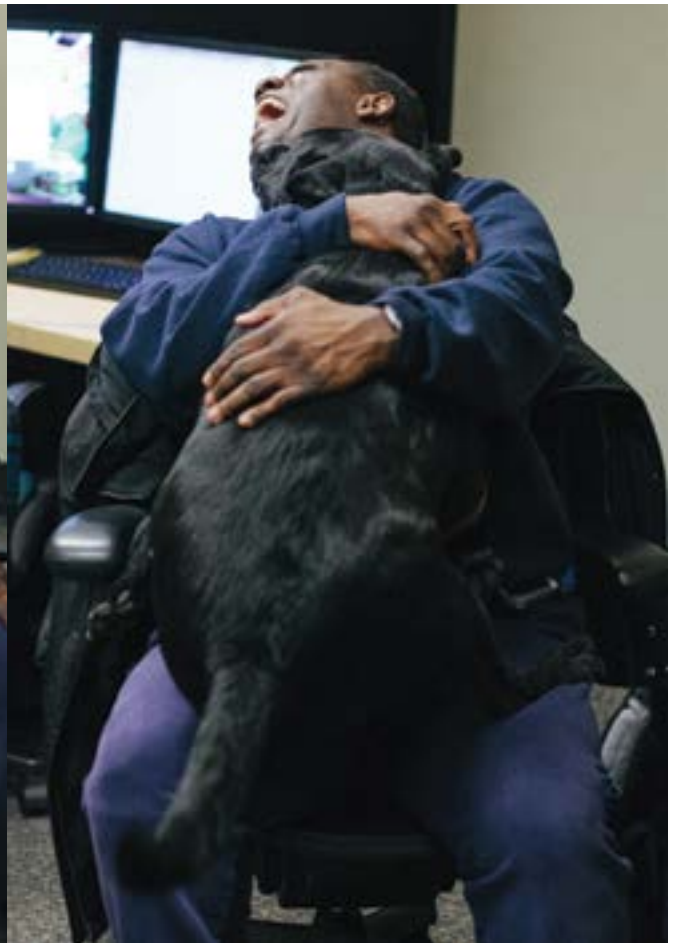
A Special Bond

He's a great listener, and I mean that sincerely. The level of companionship that he provides for me is hard to explain. It's amazing how they can tell when something is wrong with you, if you're tired or not feeling well.

He saved my life last spring—I had just 15 hours of sleep in one week and almost

stepped off the curb. He jumped in front of me and pushed me back on the sidewalk. I just sat down and hugged him. He does that kind of stuff. I am literally always thinking about how he's feeling.

If he's there for me, I'll be there for him no matter what. He gets more gifts than anybody at Christmas. ▲



HOMES SWEET DEARBORN



Linda Ellington, Bio 82, might be Atlanta's favorite veterinarian. She's certainly the only one ever shut down by NATO. After years of providing top-notch care out of a beloved—but crumbling—old building, she just built her practice a state-of-the-art hospital that would make even the most skittish critter shiver with joy. But can she make it through moving day?



BY RACHAEL MADDUX | PHOTOS BY ANDREW THOMAS LEE



Dearborn

On Thursday, Nov. 7, Dr. Linda Ellington parks behind the old brick building, lets herself in through the creaky back door, stashes her purse in the storage room and pulls her white lab coat off the rack for the last time.

By now, she could make her way around the place blindfolded: Through the orange-tiled waiting room, past the overstuffed front office, down the hall lined with exam rooms to the treatment room where her staff always gathers despite the cramped quarters. Back down the hall, she would know exactly where to turn the corner toward the silent sickbay of the isolation room and the raucous boarding kennels, the big dogs' barks echoing hard against old wood and concrete and chain link fencing. Without looking, she could cross the muddy play yard to the dim back room with its rows of wooden crates and cages full of animals waiting for homes better than the ones they've already known.

Dr. Ellington, Bio 82, has worked here, at Dearborn Animal Hospital in Decatur, Ga., since 1986, when she was hired straight out of veterinary school at the University of Georgia. Dearborn itself has been here—in this red-brick building on East College Avenue, low-slung with a

funny turret above the front office—since 1948. For Dearborn's patients, animal and human, it feels like home. For Dr. Ellington, who once lived with her family in the apartment upstairs, the place *is* home.

She's left three times before. In 1989, she moved to

Mexico with her husband, Scott, Psych 83, to do missionary work. In 1989, she left again for Scott's graduate studies in the U.K. And in 1994, she left again to work with Scott as

house parents at an international school in Germany, where she almost gave up vet work entirely. But she always came back. And in 2009, she bought the practice, becoming Dearborn's fourth—and first female—owner.

Now she's preparing to say goodbye to the old brick building once more. This time,

though, she's bringing the rest of Dearborn with her. The practice's new address is a mid-century industrial building, a former candle factory that construction crews have been turning into a state-of-the-art veterinary hospital since January. It's bigger, it's brighter, it's a complete unknown.

Tonight, after the last patient hops or crawls or scampers out the old front door, Dr. Ellington's staff—six doctors, five technicians, six front office staff and four kennel employees—will begin the process of relocating every last scalpel, kibble, leash and syringe to the new place, exactly 1 mile from the old one. Just around the block but light-years away.

That's the plan, at least. But first Dr. Ellington has to make it through the longest day of her life.

9:10 A.M.

Smoke, an antsy gray pitbull, is her first order of business. In an exam room where Post-It notes declare cabinets and drawers "EMPTY" and supplies litter the peeling countertops, Dr. Ellington administers a quick vaccination, a routine stool sample, and a cat treat for his troubles—the dog snacks are all packed. He doesn't seem to notice or care.

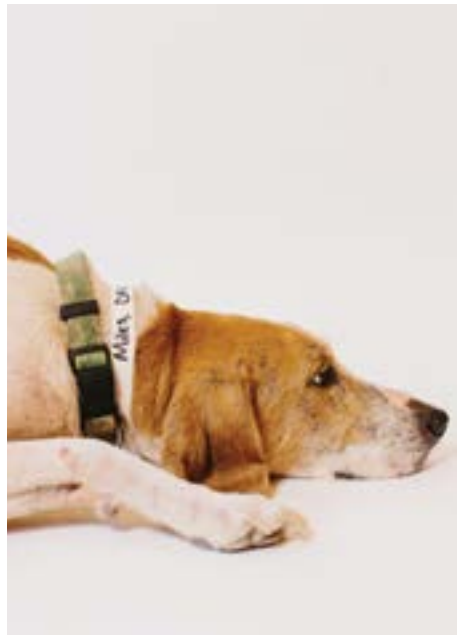
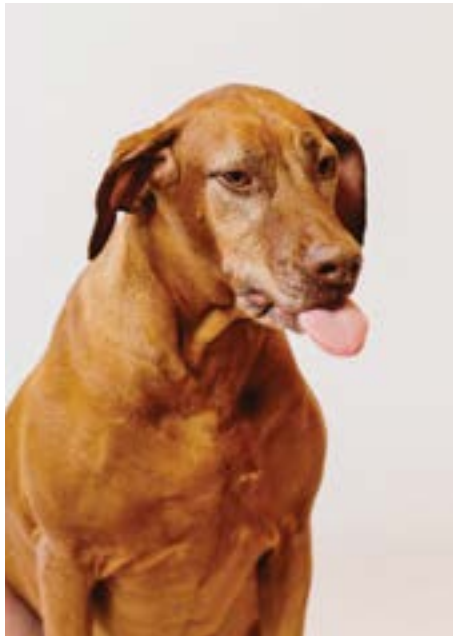
Out in the waiting room, Smoke sniffs at a pair of beagles, who soon follow their owners, a middle-aged couple, back to the exam room.

Daisy, pushing 14, isn't doing well—no energy, no appetite. "I just don't want her suffering," the man says. Becca, a vet tech in red scrubs, whisks Daisy off for X-rays and Miss Sally takes her place on the table. She's easy—just needs her anal glands expressed. When the deed is done, Dr. Ellington grabs a squirt bottle. "Listerine," she says, "is great for cleaning butts."

When Daisy's X-rays are ready, one owner follows Dr. Ellington to a room across the hall. They stare at the dog's



• Above: Dearborn Animal Hospital's longtime home. Opposite page: The faces of Dearborn.





illuminated insides. Her liver is a concern—it might be Cushing's disease, or cancer. The man purses his lips, his bristly gray mustache flaring. He blinks hard. "I just don't want her to suffer," he says again, steadying himself against the door frame.

Back in the exam room, when Dr. Ellington mentions palliative care, the couple's faces crumple. "Not every day needs to be a mountaintop day," Dr. Ellington reminds them. They decide to watch Daisy for a few more days, see how she does. After all, the other night she rallied and ran around the house like a puppy.

"All right, Doc," the man sighs. His wife gathers the leashes.

10:20 A.M.

At the far end of the hall is the treatment room, which also serves as the current building's ICU, post-op recovery area, phlebotomy lab and imaging center. By the door, a whiteboard lists the names of admitted patients: Fifi, Chester, Malachai.

Dr. Shannon Day, Dearborn's youngest vet, is locked in negotiations with an icy-eyed Siamese hooked up to an IV pushing fluids. "Please pee for us, Sissy Spacek!" she pleads. Most of Dearborn's patients are dogs (they also see cats, rabbits, ferrets, birds and more), but even for Dr. Ellington, today is oddly canine-heavy. She squeezes past to consult with Dr. Dixie Cely about a mutt's blood work (diagnosis: not diabetes). Then she glances at the clock.

Over at the new building, the practice manager, Scott Zimmerman, is waiting for the fire marshal, who's overdue for the inspection to grant Dearborn its certificate of occupancy. The week has been riddled with last-minute snafus: countertops installed in the wrong color, concrete that couldn't be poured in the rain, one light fixture that just wouldn't turn on. Dr. Ellington was over there before her shift this morning, scrubbing every surface free of construction dust.

But even unfinished, the new Dearborn is a dream. It's 13,632 square feet, three times bigger than the old place. The new waiting room has a dog zone and a cat zone, a row of old church pews lining one wall. Each of the six new exam rooms has a computer—the practice is finally going digital. The new treatment room has six exam tables and two walls of cages for pre- and post-op animals. The pharmacy is sprawling, accessible from every exam room and the treatment room, and outfitted with a Cubex, a vending machine with a biometric reader for dispensing controlled substances (like

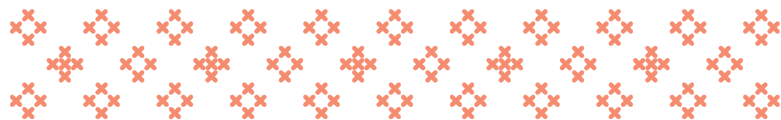
pain medication or euthanasia solution) to replace the hot pink three-ring binder they've been using for years. In the boarding area sit banks of roomy, gleaming stainless steel cages for small pets and soundproofed kennel runs for bigger dogs. Outside, a fenced-in, AstroTurf play yard. In the back, a cavernous space for training classes and adoption events. Everything was built to earn the highest rating from the American Animal Hospital Association. The ceiling is pocked with skylights, the walls all cozy shades of yellow and orange.

"It's just the building that's changing," Dr. Ellington says to anyone who looks a little bit sad about the move. "The people and the way we care for animals will be the same, and that's what really matters."

10:54 A.M.

At the old building, the treatment room, 20 square feet, is packed with doctors and techs and groggy animals. It seems to grow smaller by the minute.

Scott appears in the doorway. Bad news: The fire marshal still hasn't arrived, but the new place is somehow short one fire extinguisher—an industrial 20-incher, not the kind they could pick up at Ace Hardware down the block. Without it, Dearborn's certificate of occupancy will be withheld and their moving day delayed.



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Dr. Ellington says to anyone who looks a
little bit sad about the move. "The people
and the way we care for animals will be the
same, and that's what really matters."



Sadie, an old black lab mix, is brought in to have an ear hematoma drained. She bucks herself off the exam table and is wrangled to the floor, where Dr. Ellington tucks a folded towel between the cold tile and the dog's long snout and administers sedatives. She waits for the drugs to kick in while weighing her options.

The plan was for the office to close tonight and reopen on Monday in the new location. That's three days out of service. The last time Dearborn closed was in 2009, for the funeral of Dr. Bruce Jackson, the practice's previous owner—even then, it was just for half a day. In the 27 years she's been here, Dr. Ellington can't remember another closing, but this had been the plan for months.

"I don't like last minute things," she says to the room. "This is not my happy place."

Once it becomes clear they won't be able to move in the morning, Dr. Ellington makes the call: Dearborn will be open in the old building tomorrow at least for a half day, one last blast on East College Avenue. Vet tech Becca is dispatched to print up a new sign for the front door. Dr. Ellington turns back to Sadie, now fully conked out.

The dog's right ear, usually floppy, is swollen to the size of a potato, full of blood from a capillary that burst under her skin, likely from flapping her head to relieve discomfort from an inner ear infection. Ian, a veterinary student, positions a lamp to shine down on the dog. Dr. Ellington spreads out some towels and crouches—better to operate down here than wrestle a flailing mutt.

In Hermosillo, Mexico, where she lived while her husband

squeeze. Blood fountains up from the ear, a pool of scarlet spreading across the towels on the floor. After coaxing out the last clot, she inserts a cannula with a drain into the incision, stitches it up, then trims Sadie's nails. "Lucky girl, you get a mani-pedi with your ear surgery!" she exclaims. Sadie responds with a snore.

11:45 A.M.

Molly is a black-and-white pit bull mix brought in a few days before, 4 months old with a failing liver. Her abdomen is full of fluid, her eyes and her white fur patches tinged yellow. In the pharmacy, Dr. Ellington fills a syringe with the cerulean liquid—the euthanasia solution Socumb—and sets off down the hall to the isolation room, where her sickest patients are cloistered.

Some vets will euthanize a dog or cat at the owner's whim—because the animal is aging or annoying or simply unwanted—but not at Dearborn. Instead, they keep the animal, treat it if it's sick, then find it a new home. Dr. Ellington's staff also won't turn away an animal in pain just because its owner can't pay—they'll do what they can, work out a payment plan. The hospital works with a few locals who regularly bring in animals rescued from dumpsters or

ditches; sometimes pets are just left outside the hospital in cardboard boxes or tied to the dumpster. Dearborn takes them all in. "My accountant thinks we give away too much," Dr. Ellington says, and shrugs.

Sometimes, though, there's not a choice. Some animals, like Molly, won't get better. There's a pricey surgery that might help, but her owner can't afford it, and it's too risky to justify the cost. Her condition is terminal.

At the doorway of the isolation room, Dr. Ellington steps on a bleach-soaked towel in a bin to sterilize her shoes and enters the fray. A tuxedo cat sits in a crate by the door, rubbing his face against the bars. He was left for boarding years ago and never picked up. He's a Dearborn office pet now, but today he's got a cold they don't want spreading. "Hi, Jeremiah. Are you still sneezing?" she asks. "You pooped like a champ today. Good boy!"

At the back of the room is another crate, a skinny pup with a distended belly curled in one corner. The syringe is ready, but Molly is too dehydrated—Dr. Ellington can't find a good vein. Liese, a vet tech in green scrubs, brings in an easier-to-administer sedative to prepare the dog for the second option, an inter-cardiac Socumb injection. "Yes, you're very brave," Dr. Ellington says to the dog. And then, to the room: "If we can't make them better, the least we can do is make them not suffer anymore."



Some vets will euthanize a dog or cat at the owner's whim—because the animal is aging or annoying or simply unwanted—but not at Dearborn. Instead, they keep the animal, treat it if it's sick, then find it a new home.



taught at a local college, she opened a veterinary clinic and started an outreach program in the local community. Children would bring their pets for check-ups, sometimes when they didn't have access to medical care themselves. So she corralled some pediatricians and dentists to treat the kids, too. There's power in meeting patients where they are.

Now, Dr. Ellington walks Ian through shaving the fine hairs from the underside of Sadie's ear, sterilizing the area with Betadine. She makes a tiny incision in the taut skin and gives it a

12:26 P.M.

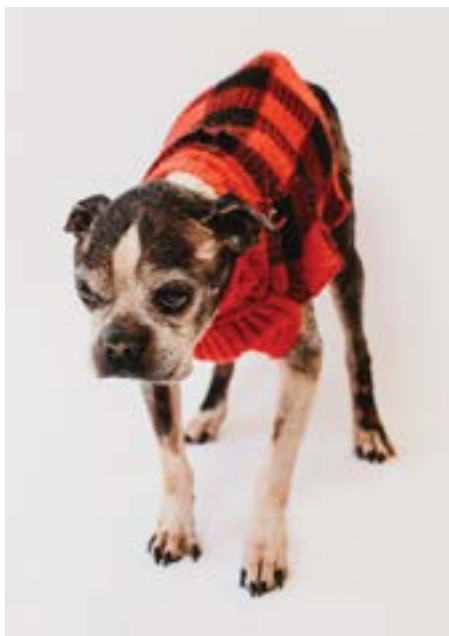
As they wait for the sedative to take hold, Liese mentions that the woman who brought Molly in a few days before has just arrived with another sick puppy. Dr. Ellington leaves the black-and-white dog napping—the drugs will hold for an hour or so—and meets her brown-and-white littermate in an exam room, where the woman has been crying.

With her sister, Molly, gone, the woman says, Diamond has stopped eating. Her stool is loose, her urine discolored. Dr. Ellington looks at the dog's file, notes that she hasn't been vaccinated; the woman says she was waiting for a free clinic in her neighborhood. Diamond shivers on the exam table.

Dr. Ellington suspects canine parvovirus. "Oh, Jesus," says the woman. Parvo is preventable by vaccine, but potentially devastating otherwise—without treatment, most affected puppies will die of either dehydration or a secondary infection. Dr. Ellington takes a stool sample. The woman's cell phone rings and she answers: "He sold you a bad puppy. He sold us a bad puppy." She sobs and stumbles out of the room and down the hall. The dog whines. "I know, sweet pea," Dr. Ellington says, rubbing her belly and between her ears. "I know."

After the woman returns and the parvo test comes back positive, Dr. Ellington explains the plan of attack: Start Diamond on fluids immediately, then antibiotics. They'll keep her at Dearborn for monitoring. They should have an idea of her chances within 24 hours—right now, it could go either way. The doctor's tone is low, steady: "This is why we vaccinate."

"I feel so bad," the woman says, her voice thick. She kisses the dog's head before she leaves. "I love you."



1:17 P.M.

Down the hall, Dr. Ellington bleaches her shoes again and leads Diamond to a towel-lined crate in the back of the isolation room, across from her sister. Liese arrives with the Socumb. Dr. Ellington crouches before Molly—still sedated, breathing shallow—and pushes the blue liquid into her heart. Dr. Ellington strokes the dog's thin fur until her heartbeat stops, then pulls her into her arms and lowers her into a white plastic bag that Liese holds open.

The body will be placed in a freezer down the hall. If the woman chooses not to claim the remains for burial at home, they will go to Paws, Whiskers & Wags, a pet crematory a few blocks away. A van comes for pickup a couple times a week.

As they clean up, Dr. Ellington asks Liese for the latest on the fire marshal, but no one seems to know.



“Yes, you’re very brave,” Dr. Ellington says to the dog. And then, to the room: “If we can’t make them better, the least we can do is make them not suffer anymore.”



12:13 P.M.

Dr. Ellington usually doesn’t take a lunch break, but today she finds time for a few bites of potato and sausage pie she brought from home a few days before. Someone has given her a large bottle of Roloids with a bow on top; she chews a few while catching up on phone calls and billing paperwork. “His lab work is extraordinarily boring,” she says, leaving a voicemail for the owner of a dog named Brady.

Dr. Ellington’s daughter, Melinda, IAML12, has been helping organize the moving schedule and develop Dearborn’s new system for tracking controlled substances. She drops by with a Tervis tumbler of coffee for her mom and grabs a Roloids for herself.

3:00 P.M.

A text message from Scott: “we are ready for the fire marshal!”

3:25 P.M.

Scott texts again: “inspectors are at the building!”

“I still have the smell of Roloids on my breath,” Dr. Ellington says, reaching for the bottle. “Throwing another in there won’t hurt.”

3:40 P.M.

Sandy is a golden retriever mix the shape, size and color of a hay bale, and she keeps randomly going lame in one leg. “Of course she’s OK now,” says her owner, a regular at Dearborn with her other dog, Mocha, who has anxiety troubles. The doctor squats before Sandy, runs her hands up and down the dog’s limbs, lifts one paw to shift her weight to the other

side. It could be neurologic, not orthopedic—like a pinched nerve—but that’s hard to diagnose in dogs. The women shrug. “No charge today,” Dr. Ellington says, standing up. “Your dog’s not limping.”

Dr. Ellington returned to Dearborn from Mexico in 1992; two years later she left for England, where her husband had been admitted to a PhD program. She took a job as a vet on a Royal Air Force base in Feltwell, Norfolk, where she was only supposed to treat the base’s working animals, but soon airmen were bringing their pets from home, too. The

local veterinarians noticed their business declining and grew displeased. Someone complained to the local member of Parliament, who ran it up the chain of command until one day Dr. Ellington’s base commander—whose cat she had treated—summoned her to his office. And that is when Dr. Linda Ellington learned she had become possibly the only veterinarian to ever be shut down by NATO.

The Ellingtons’ next stop was the village of Rudersberg, in Germany, where they lived at an international Bible school as house parents for a few years. German law required vets to have lived in the country for six years before becoming licensed, so Dr. Ellington put her practice on hold; when her family returned to the States, she thought she might hang it up for good. But then Dearborn had a part-time opening and she figured, why not? Soon she was back up to full time. And then, in 2009, when Dr. Jackson announced he was selling the practice, she found herself in his office, telling him she wanted to buy it. “Good,” he told her. “You’ve been acting like you owned the place for years, anyway.”







“Jack’s alive because of her,” the man says, nodding toward Dr. Ellington. “She’s one of the most amazing people I’ve ever met.”



3:56 P.M.

In the midst of shaving down a goofy Samoyed with a hotspot, Dr. Ellington hears that the fire marshal’s inspection is done. Kind of. Everything they worried would be a problem was fine, but there were a few small electrical glitches, so he’ll be around for another inspection in the morning. Hopefully.

4:23 P.M.

Dr. Ellington is consulting with the owner of Nyka, an itchy Rhodesian Ridgeback, when her phone rings; it’s the construction foreman. “This is about the new building,” she says to the man, who nods. She steps into to the pharmacy, where she’s soon translating a conversation between the foreman and his Spanish-speaking work crew. “He says we’ll get the C.O. tomorrow,” she says. “But he also said he’d have it Monday ...”

After a skin test shows no mites for Nyka, Dr. Ellington steps out of the room again to retrieve a bag of hypoallergenic dog food. In the hall, she’s handed a cardboard box full of leashes, food bowls and bags of treats. Someone from the girl’s running club at Wesleyan School in Peachtree Corners, Ga., has just come by to deliver the box, plus a check for \$125—the girls picked fundraising for Dearborn as their fall service project.

Back in the exam room, Dr. Ellington shows Nyka’s owner the box and the goosebumps on her arm. “Somewhere,” she says, “we’ve made a difference to somebody.”

The phone rings again—it’s another patient, a German woman, and Dr. Ellington is soon speaking her third language of the day.

When Nyka is finally on her way, a plan for diet monitoring in place, Dr. Ellington takes her first sip of the coffee Melinda brought an hour ago. It’s still a little bit warm.

5:45 P.M.

“That looks marvelous,” Dr. Ellington says, running her fingers down the incision on the big black lab’s belly. Jack is 13, diabetic, and a few weeks ago had a huge mass removed from his chest. Now it’s time for the staples to come out.

His owner, tall with a thick mustache, holds him down, belly-up, but it’s not enough. Vet student Ian brings in a nylon muzzle and soon has the dog in a wrestling hold on the floor. Dr. Ellington crouches next to the dog, a MagLite in her teeth, gingerly prying out staple after staple from the writhing dog’s underside.

Jack’s owner stands off to the side, issuing encouragement like a Little League coach. “It’s outrageous, I know. It’s an outrage,” he says as his dog whines. “Good boy, Jack. Jack, Jack. You a good boy. This’ll be fast. Good boy, Jack. You’re the man!”

Jack passes gas, his last remaining means of protest.

“Jack’s alive because of her,” the man says, nodding toward Dr. Ellington. “She’s one of the most amazing people I’ve ever met.”

When the staples are out, Dr. Ellington exhales and sits back on the floor. Jack, released from Ian’s grip, scrambles to his feet and leaps onto the doctor, a foreleg on each of her shoulders, as close as he’ll get to saying thanks.

6:15 P.M.

The office officially closes at 6 p.m., but as always there are some stragglers. There’s a Chihuahua in surgery—a car accident, a cracked pelvis—but another doctor has that under control. On rope leashes in the hallway, waiting for their owner to pick up bags of prescription food, are two recent rescues, a pitbull named Duchess and a lanky golden retriever named Cash Money Baron. Dr. Ellington gives each a good belly scratch before ducking into the storage room, slipping off her white lab coat and pulling on a blue leather jacket with zippers up and down the sleeves. She’s done with her not-quite-last day at the old Dearborn, but she’s staring down a few more hours of work at the new place—more dusting, more cleaning, more making sure everything is just right.

The certificate of occupancy finally will be granted next Tuesday, Nov. 12, at 9:10 a.m. Dearborn will open its new doors the next morning, its first patient a mean old cat taken to eschewing her litter box. But Dr. Ellington doesn’t know that yet. She doesn’t even know what time she’ll get home tonight. Then again, as she leaves one Dearborn for another, she already is. ▲





BY
VAN JENSEN

Man's (New) Best Friends

The venomous sidewinder rattlesnake has always been able to kill you—but now it could help save you, too. It's just one of the unlikely species inspiring Institute researchers to improve lives, animal and human alike.



• The sidewinder's movement may appear awkward, but it is evolved to speed across sandy surfaces.

Despite the many famous animals that populate the annals of Georgia Tech

lore—Sideways, Stumpy's bear, the St. Bernards of Lambda Chi—for many years, the Institute rarely engaged with animals in an academic capacity. Even as recently as the late 1990s, every single research animal on Tech's campus was contained in a single tank inside a lab in the School of Civil and Environmental Engineering. The sum total: six goldfish.

In the ensuing years, Tech researchers have expanded their focus to more fully explore the intersection of engineering and the natural world. And as they have, one theme has emerged again and again: For as much as we still have to learn about animals, they may have even more to teach us about ourselves.

These days, animals are helping researchers to better understand not only animals themselves but also the wider world, including humankind's place within it—our physiology, our brains, our interactions with our environments. Animals are inspiring Tech's faculty and students to create advanced robots, medical technology and improved prosthetics, among other developments that will shape the future, both saving and improving human lives.

Often, these animals aren't the types that you would expect to be saving people. Take the sidewinder rattlesnake. It's best known for lying in wait

in sandy stretches of the Southwest, ready to strike any prey that comes within reach and inject it with venom. But the sidewinder's unique

motion that carves an arcing trail through the desert is proving key to researchers who seek to build a robot capable of moving across sand.

That is but one of a growing number of animal-related projects taking place on campus. As these endeavors have increased, Georgia Tech has taken steps to manage and oversee such work.

All research involving animals is conducted under strict guidelines ensuring that as few animals as possible are used in research, and that those animals are treated humanely (see the sidebar on page 66 about Tech's Institutional Animal Care and Use Committee). Animals have given much to researchers, and so researchers do their part to give something back.

Here, we look at just a small sampling of the ways in which animals are helping Tech researchers transform the world.

INSPIRING ROBOTS

Biologically inspired robotics has developed into a major focus at the Institute, with multiple labs looking to the animal kingdom for inspiration. One challenge that has long vexed researchers is the ability to traverse across sand. It's a tricky prospect, as sandy surfaces can take on the properties of a solid, a liquid and even a gas. But while robots struggle with the surface, various animals are able to move across sand, including lizards, sea turtles and snakes. Now Tech roboticists are mining the creatures' behavior for their evolutionarily perfected secrets.

A robotics team led by Dan Goldman, an assistant professor in the School of Physics, and David Hu, an assistant professor of mechanical engineering, began performing comparative studies on how sea turtles and sandfish (which essentially swim on land) move over sand. Then they turned to snakes.

One snake-based robot that came out of the lab—known as Scalybot—was effective on many surfaces, but it always got stuck in sand. Many real snakes struggle with sand, too. They partnered with Joe Mendelson, curator of herpetology at Zoo Atlanta and an adjunct professor at Tech, to study a snake that's at ease on sand: the sidewinder rattlesnake.

"They're famous for their funky sideways locomotion through sand dunes," Mendelson says.

Georgia Tech prohibits venomous snakes on campus, and Tech researchers themselves can't handle poisonous animals. Mendelson's position at Zoo Atlanta allowed him to collect sidewinders from Arizona and conduct the research at the zoo in "the world's most expensive sandbox." Tech's researchers simply observed the results.

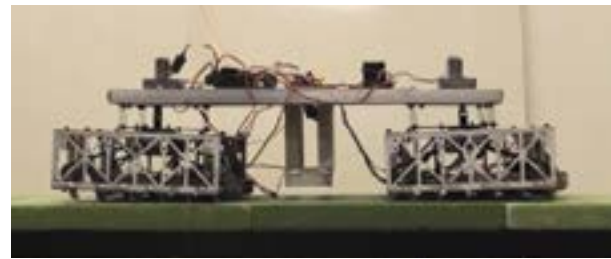
The team now has a firm understanding of how sidewinders handle sandy slopes, and they're examining how the snakes navigate obstructions. While sidewinder-style robots have obvious uses—search-and-rescue missions, military operations, planetary exploration—research partners from Harvard University have suggested sending the robots into sand-filled tunnels in Egyptian ruins.

Animals are inspiring Tech's faculty and students to create advanced robots, medical technology and improved prosthetics, among other developments that will shape the future, both saving and improving human lives.

"A robot can't go down a sand-choked tunnel underground—only a snake can do that," Mendelson says. "So we need a sidewinding robot with a camera that can look around. Then [if something of value is down there] you can put in the effort to dig it out."

The needs of robots extend far beyond traversing sand, and inspiration has come from some surprising places. Hu received a lot of attention last year for publishing a study of the "wet-dog shake"—when dogs shake wildly to dry themselves. The physics of the wet-dog shake are impressive—dogs can shake themselves 70 percent dry in just a fraction of a second. While the research might seem silly, it does have useful implications. Hu says the research could be used for improved drying technology or in robotics.

"In the future, self-cleaning and self-drying may arise as an important capability for cameras and other equipment subject to wet or dusty conditions," he says.



• Scalybot 2 was inspired by the movements of snakes. Future iterations could be used in search-and-rescue missions.

IMPROVING HUMAN LIVES

The School of Applied Physiology is home to the Comparative Neuromechanics Lab, where humans, rats and other creatures run on instrumented treadmills. Meanwhile, researchers gather data on how animals move.

This comparative data reveals a wealth of information on how healthy animals move, and how their bodies compensate after an injury. The findings are critical to the development of new approaches to rehabilitation of human and animal patients.

The lab's director, associate professor Young-Hui Chang, says he'd wanted to study animal locomotion ever since growing up watching animals in National Geographic documentaries. The lab's data also is being used in Tech's Center for Prosthetic and Orthotic Research and Education to design and test new prosthetics, which are changing the lives of humans with missing limbs.

• The sandfish lizard evolved to "swim" through sand.



Caring for Research Animals

All Tech researchers whose work involves live specimens use as few animals as possible and follow strict regulations to ensure humane treatment. These regulations are enforced by the Institutional Animal Care and Use Committee, a group that monitors all research and teaching activities at Georgia Tech involving vertebrate animals and makes certain it follows guidelines in the Federal Animal Welfare Act.

The IACUC reviews any activity involving animals before animals are used, and the committee meets monthly to review protocols. IACUC responsibilities include frequent inspections and documentation.

"At the deepest level, I owe animals the best possible care," says Richard Nichols, professor and chair of the School of Applied Physiology at Tech and director of the Neurophysiology Lab, whose animal research augments his study of the physiology of human locomotion. "I feel particularly qualified to make sure of the humane treatment of my animals, and I regard it as a personal obligation."

More information about the committee and the Institute's policies regarding research animals is online at researchintegrity.gatech.edu/about-iacuc/.

• A harness equipped with sensors allows dogs to communicate more effectively. The technology could improve the responsiveness of service dogs.

In the biotech quad on campus, the Parker H. Petit Institute for Bioengineering and Biosciences is focused largely on studying disease and injury and developing innovative treatments. One recent study showed that delivering stem cells on a polymer scaffold to treat large areas of missing bone led to improved results compared to using a scaffold alone. This research—conducted on rats—could be a potential alternative to bone-grafting operations.

“Massive bone injuries are among the most challenging problems that orthopedic surgeons face, and they are commonly seen as a result of accidents as well as in soldiers returning from war,” says the study’s lead author, Robert Guldberg, a professor of mechanical engineering and the Institute’s executive director. “This study shows that there is promise in treating these injuries by delivering stem cells to the injury site. These are injuries that would not heal without significant medical intervention.”

HELPING ANIMALS

Some researchers on campus have dedicated their time to developing models of animals. One team including researchers from applied physiology and biomedical engineering has developed a 3-D computer model that can be studied at almost the same level of detail as a physical specimen. While the model can’t entirely replace live animals in experiments, it can greatly reduce the numbers that are used. The principal author of the model, Nathan Bunderson, also is in the process of making the model commercially available for educational purposes.

Another modeling effort that is providing a greater understanding of animals comes from the lab of Tech associate professor of physics Flavio Fenton. Fenton has created extensive models of hearts after studying fish, mice and horses. His detailed electronic models are a tool to researchers and



“Currently, dogs can only communicate with people by barking or through body language. Sometimes that isn’t good enough,” Jackson says. “The sensors can give them a voice they’ve never had.”

veterinarians around the world.

One project is focused on fostering a more symbiotic relationship between pets and humans. The Tech-based Facilitating Interactions for Dogs with Occupations (FIDO) is an effort led by faculty member and dog lover Melody Jackson, PhD CS 98. Jackson, an associate professor of computer science and director of Tech’s Center for Biointerface Research, created a vest for canines that

is equipped with several sensors. A dog can trigger a sensor by nipping or nudging it, movements that send audible cues to the dog’s owner. The technology could be of use for service or rescue dogs.

“Currently, dogs can only communicate with people by barking or through body language. Sometimes that isn’t good enough,” Jackson says. “The sensors can give them a voice they’ve never had.” ▲



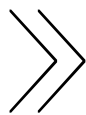
alumni **house**



L-R: Jenn Bateman-Gilliland, PFE 12; Alynn Lecznar, Bio 13; and Katie Geddes, Bio 13, all members of the Georgia Tech Equestrian Society, ride as they are inducted as honorary members of the Atlanta Police Mounted Patrol in 2011.



THE NEIGHS HAVE IT



Horsin' Around

Rachael Maddux

Saddle up with the Georgia Tech Equestrian Society.

Heather Shankwiler, MS Mgt 99, grew up with horses: Her family owned a farm and she rode Paso Finos competitively until 1990, when she won a Reserve National Champion title in equitation. After college, she turned to the Atlanta Steeplechase for her equestrian fix—but found the festivities to be a little heavy on the red-and-black. So in 2011, when Erika Larson, ME 04, MS BioE 06, approached her about injecting some Tech pride into the heavily UGA-attended event, she jumped at the chance.

Every year since, the Georgia Tech Equestrian Society has set up a tailgating session for fellow Yellow Jackets before

the big race. “We have a larger and larger group join us each year,” says Shankwiler, who’s already planning their get-together for this year’s Steeplechase, on April 19. “When you bring like-minded people

together in any situation—whether Tech people, horse people or a combination of the two—it is great to see the relationships, connections and friendships built.”

The GTES also helps promote the students on the Georgia Tech Equestrian Team, supports alumni who ride competitively (mostly Western and English circuit), and offers members a chance to connect and network with fellow equine enthusiasts, even if their own days of competing are over.

“For me, the benefit of being part of GTES is that I get to continue to be involved with a sharp group of Tech



• Above: Alynn Lecznar, Bio 13, and Erika Larson (at left) ride in the 2012 North Georgia Intercollegiate Horse Show Association event.

students and alumni,” Shankwiler says. “A horse person is a horse person underneath. We still have to feed them,

care for them, groom them and muck their stalls—just that alone draws people together.” ▲



Are you a horse person? Learn more about the Georgia Tech Equestrian Society and see a calendar of upcoming events at facebook.com/GTESociety.

KUDOS!

The Alumni Association's Networks and Affinity Groups depend on volunteer leadership to organize gatherings, fundraisers and community service projects. Here are a few leaders who deserve thanks for their hard work.

Lee Baker, IE 90, serves as the president of the Black Alumni Organization.



He has excellent leadership skills developed during 25-plus years in the financial services industry. Baker has focused his passion to help

GTBAO recruit and retain black students at Tech.

Danny Crnkovich, CE 10, and **Matthew Taylor, Mgt 05, Econ 05**,

focused the Georgia Tech Chicago Alumni Network on scholarship



fundraising and networking gatherings. Crnkovich, the president, and Taylor, the president elect, established a brand identi-

ty and increased event awareness among the 1,200 alumni in the area. A strong presence on Facebook and Twitter also helped to connect alumni. The Network offered entertaining events to drive participation including meet and greets, wine tastings and game-watching parties. In 2013, the Network awarded its first scholarship, and in 2014 the Network will award two more scholarships.

Kevin Hade, EnvE 10, is president emeritus of the Crew Alumni



Affinity Group. He devoted his time and expertise to help enhance the Tech experience of

alumni with an interest and passion for rowing. Hade also helped develop programs and events to support the undergraduate crew team.

Col. George Pilkington, CE 61, MS

CE 70, M CP 70, is an executive board member of the Co-op Affinity Group and has been a dedicated volunteer for more than seven years. Pilkington is always eager to help and participate



in various Affinity Group projects. He also volunteers in the community as an advocate for the elderly.

Jessica Rozier, Mgt 09, and her husband, John, AE 08, MS AE 09, attended the first Monthly Happy Hour Meet and Greet in 2011 for the Central Florida Alumni Network and almost immediately started making an

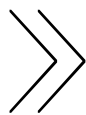


especially made the Scholarship Fundraising Wine Tasting Event a success.



Ty Murray, ME 82, is president of the Richmond, Va., Network. He created an annual calendar for the organization; introduced new events, includ-

ing a fish fry; involved more alumni; and led the effort to create an endowed scholarship.



The Value of Career Fairs

Caroline Player

Connect with employers at the Alumni Career Fair on May 13 in Atlanta.

In my career advisement sessions with alumni, many express frustration over the online job sites most employers require applicants to use. The sites are increasingly popular, but can feel impersonal. Fortunately, they aren't job seekers' only option. The Georgia Tech Alumni Career Fair offers Wrecks a chance to network with employers and recruiters in person—and it's coming up soon.

Employers at the Career Fair have expressed interest in recruiting from Tech and are well aware of the experience level of our alumni attending the fair. Titles such as senior product manager, chief operating officer, engineering program manager and HR director were among those advertised in last year's employer data book. Attendees also found less senior opportunities like LEED certification consultants, mid-level software developers and process engineers—roles more appropriate for those with five years of experience.

Whatever your background, the employers attending our Career Fair are interested in you. They are interested in the education you've earned as well as the experience you've amassed. Their requirements are as varied as our alumni population.

And one of the biggest advantages of the Alumni Career Fair is the



opportunity to have a conversation with a hiring manager or employer representative—the opposite of those impersonal jobs boards.

You have the chance to build rapport with an actual person associated with an organization who can be an advocate for you and to directly express your value. You can talk with them about your successes and ideas. These types of exchanges may actually shave steps off of the hiring process. Some

of our employers choose to conduct short interviews right at the Career Fair.

The Alumni Career Fair takes just a few hours, but it can make a major impact on the course of your career. Whether you need a new position very soon or are just curious about opportunities that will increase your responsibilities and position, we invite you to take advantage of this chance to put yourself in front of companies that want to hire Tech alumni. ▲

Caroline Player is the director of Career Services at the Alumni Association. **Want to attend the Career Fair?** For complete information on the event, held May 13 in Atlanta, visit gtalumni.org/careerfair. Alumni are encouraged to invite their companies to attend. Information is at gtalumni.org/careerfairemployer.

Nominate the 2014 Alumni Association Board of Trustees

Nominations will be accepted until March 21. The Alumni Association welcomes nominations for members of the Georgia Tech Alumni Association Board of Trustees for the term beginning July 1, 2014 and ending June 30, 2017.

Nominees must be Tech alumni and have a significant record of supporting the Institute. Self-nominations are accepted. The nominating committee will review all submissions in late March and propose a slate of candidates in April that best promotes and reflects active engagement and support of the Association and the Institute.

Go to gtalumni.org/boardoftrustees or fill out the form at right to submit a nomination. The deadline to submit nominations is March 21. Include a resume or brief biographical profile and mail to: Trustee Nominations, Attn: Jolie Rosenberg, Georgia Tech Alumni Association, 190 North Ave. NW., Atlanta, GA 30313; or email jolie.rosenberg@alumni.gatech.edu.

Online Voting Opens in April. Alumni may review and vote on the slate of candidates beginning in late April at gtalumni.org/boardoftrustees. Alumni will be emailed when voting opens. If you do not have a current email address on file, please update your information at gtalumni.org/alumnicomunity. For more details, email jolie.rosenberg@alumni.gatech.edu.

NAME OF NOMINEE
CLASS/DEGREE
TELEPHONE NUMBER
HOME ADDRESS
EMAIL ADDRESS
COMPANY AND TITLE
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"I wouldn't be as successful without the skills and tools I am learning. This program is helping me take on new responsibilities in my career."

Krogen Carreño, Class of 2014

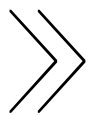
Lead Engineer, Sikorsky Aircraft Corp.

APPLICATION
DEADLINE:

MAY 1


Hybrid format | Practical, hands-on learning | Networking





*The Alumni Travel Program
takes Tech alumni to exciting
locales around the globe.*

Walk on the Wild Side

 Martin Ludwig

Alumni tours offer an up-close look at lions and tigers and bears—and more.





Alumni travel trips offer the chance to behold stunning cities and scenic vistas—but like Dorothy entering the woods in *The Wizard of Oz*, you may want to brace yourself for some ferocious beasts.

On the Tanzania Migration Safari tour you can explore the country's renowned national parks and reserves. There, you'll see lions as well as cheetahs, leopards, elephants, wildebeest, zebras, primates, antelope, gazelles, crocodiles and more than a thousand species of birds.

Want the chance to see tigers? Then join Tech alumni and friends on the Treasures of India and Nepal tour, which features a wildlife safari in Ranthambore National Park, home to a large but delicate tiger sanctuary. Morning and afternoon game drives showcase the amazing diversity of the area.

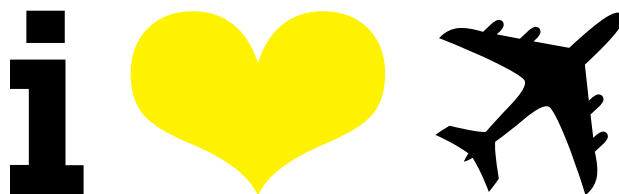
Visit the town of Haines and Icy Strait Point in Alaska for a chance to see brown bears on the Alaska Frontiers and Glaciers Oceania cruise. Haines provides a natural haven for brown bears, moose and bald eagles, while Icy Strait Point offers the chance to encounter bears, eagles and humpback whales. And wildlife, stunning scenery and cultural experiences can be found on the Discover Southeast Alaska small ship cruise.



If lions, tigers and bears are not your thing, then travel with us to Australia to see kangaroos and koalas or to the Galapagos to see giant tortoises, blue-footed boobies, sea lions, iguana and abundant bird life.

Dorothy may have only run into a cowardly lion when she entered the forest, but you have

the opportunity to see lions, tigers, bears and much more when you travel on a Georgia Tech Alumni Travel tour. ▲



If you're itching to travel the world, who better to globe-hop with than your fellow Yellow Jackets? For more information or to register for any of these trips, visit gtalumni.org/travel.



Passage of Lewis and Clark, Aug. 2-10

In the Pacific Northwest, lush, moss-covered forests blanket dramatic slopes, imposing mountains cradle deep, mighty rivers and sparkling waterfalls cascade into breathtaking gorges. Experience the region that captivated explorers as you cruise the Columbia and Snake Rivers from Clarkston to Portland.



Trade Routes of Coastal Iberia, Aug. 15-23

This eight-day voyage showcases the Iberian Peninsula between Lisbon and Barcelona and Spain's legendary Guadalquivir River. Visit Portugal's Algarve region, Granada, Spain, the Strait of Gibraltar and two of the Balearic Islands—Ibiza and Palma de Mallorca.



Baltic Treasures, Aug. 21-Sept. 1

On this captivating voyage, discover onion-domed cathedrals, Baroque palaces, medieval towns and stunning harbors as you cruise the Baltic Sea to captivating ports in Germany, Lithuania, Latvia, Finland, Russia, Estonia and Sweden.



Symphony on the Blue Danube, Sept. 1-13

Visit six countries and up to eight UNESCO World Heritage sites on this custom-designed music-themed journey featuring three nights each in Kraków and Prague and a five-night cruise on the legendary Blue Danube. Enjoy a schedule of exclusive expert lectures, classical music performances and guided excursions.



Historic Reflections, Oct. 1-12

History comes to life on this extraordinary voyage that reflects the heart and soul of the Mediterranean. Uncover cultural and historical treasures as you sail the shores of France, Monaco, Italy, Turkey and Greece.



Letter From The Chair

A colleague of mine is fond of saying, "I bring you no bad news," and that's an appropriate sentiment for my message today. Fiscal year 2013 was a remarkable year for your Alumni Association. We built new relationships and strengthened old ones. We celebrated this remarkable institution, and we continued to forge the foundation of Georgia Tech's future through engaging alumni and students.

We finished the year with more than 130,000 alumni spanning the globe. The median year of graduation now is 1994, and more than 50,000 have graduated since 2000. It's an incredible population of highly motivated, smart people whose work ethic and critical thinking skills are unmatched.

Building relationships is at the heart of our work. We want you to take great pride in your Georgia Tech degree and to share that pride by advocating and volunteering for Tech, hiring fellow alumni and helping us recruit the best and brightest students.

In fiscal year 2013, you set new standards in your involvement in

our programs, including the Alumni Career Fair, regional Networks and Affinity Groups. You helped us enrich the experience of students by volunteering as mentors and sharing your wisdom through our student programs. The Student Alumni Association, the Student Foundation and Ambassadors continue to garner national acclaim. We're building loyalty at the grassroots level. And, of course, these goals were accomplished in a very difficult budget environment. Our spending for the year was down 3 percent from the previous year.

Your philanthropic support of Tech's academic mission through the Association's Roll Call annual fund topped \$8.6

million, coming from more than 32,000 donors. This is another remarkable legacy of Tech's alumni. We support Georgia Tech because we know it's an investment in the future progress and advancement of the state, our nation and our world. Many of the world's big problems are being solved at Georgia Tech.

For each dollar the Association expended, we returned \$1.75 in either direct funds raised for the operation or philanthropy provided by you as donors. That's a very healthy return in my view.

Once again, thank you for your support of Georgia Tech, your fellow alumni and our students. Without you, Georgia Tech would never achieve the aspiration of defining the technological research university of the 21st century.

WALT EHMER, IE 89
CHAIR, ALUMNI ASSOCIATION
BOARD OF TRUSTEES

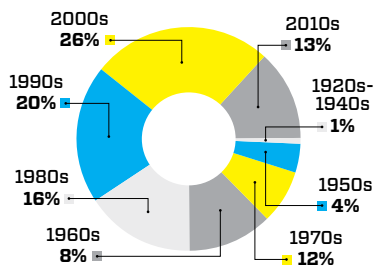
PROGRAM FUNDRAISING

	2013	2012	CHANGE
Roll Call Donors	32,225	32,443	-0.6%
Roll Call Dollars	\$8,671,944	\$8,635,302	0.4%

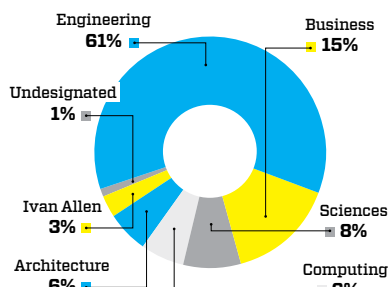
ENGAGEMENT

	2013	2012	CHANGE
Active Engagement	733,905	710,418	3.3%
Supportive Engagement	7,057,233	6,899,901	2.3%
Return for Every \$1 Spent	\$1.736	\$1.703	1.9%

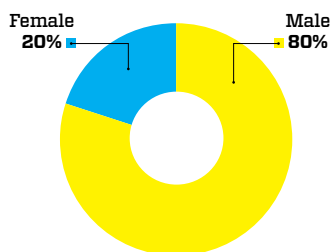
Current Alumni by Graduation Year



Current Alumni by College



Current Alumni by Gender



Social Engagement

Twitter followers: 1,415
 Facebook likes: 7,472
 LinkedIn connections: 27,133
 GTAlumni.org visitors: 326,221
 JacketCommunity visitors: 16,727
 GTAlumnimag.com visitors: 67,228
 GTSAA.com visitors: 52,486
 MentorJackets.com users: 11,249
 JacketNet Jobs visitors: 67,717

Student Alumni Association members

3,515

Mentor Jackets pairs

1,195

Association Finances FISCAL YEAR 2013

REVENUES

	BUDGET	ACTUAL	VARIANCE
GT Foundation	\$4,164,996	4,164,996	0
Georgia Tech	285,000	285,014	14
Advertising & Sponsorships	382,000	390,130	8,130
Career Services	270,000	266,025	(3,975)
Tours	110,000	120,677	10,677
Merchandise Sales (Net of Cost of Sales)	35,000	25,981	(9,019)
Royalties	75,000	6,247	(68,753)
Events	146,700	163,603	16,903
Other Sources of Revenue	613,401	209,971	(403,430)
Gold & White Honors Gala	132,865	313,674	180,809
Total	\$6,214,962	5,946,318	(268,644)

EXPENDITURES

	BUDGET	ACTUAL	VARIANCE
Administration	\$2,184,457	2,239,644	55,187
Career Services	287,900	224,495	(63,405)
Communications	617,186	604,067	(13,119)
Alumni Relations & Tours	441,550	366,720	(74,830)
Roll Call & Business Development	810,530	793,060	(17,470)
Campus Relations	438,000	375,081	(62,919)
Event Management	929,789	998,560	68,771
Marketing Services	505,550	379,167	(126,383)
Total Expenditures	\$6,214,962	5,980,794	(234,168)
Excess (Deficiency) of Revenue Over Expenses	\$0	(34,476)	(34,476)

ASSETS

	2013	2012
Cash and Cash Equivalents	\$48,507	146,696
Accounts Receivable less Allowance for Doubtful Accounts of \$3000 in 2013 and \$3000 in 2012	57,470	147,113
Prepaid Expenses	39,830	21,283
Inventory	2,476	2,734
Property, Plant and Equipment, Net	122,369	173,587
Antique Ramblin' Wreck	12,500	12,500
Total Assets	\$283,152	503,913

LIABILITIES AND NET ASSETS

LIABILITIES	2013	2012
Accounts Payable	\$104,043	137,799
Accrued expenses	275,193	317,507
Total Liabilities	379,236	455,306

UNRESTRICTED NET ASSETS	2013	2012
Expended for Property, Plant & Equipment	\$134,869	186,087
Available for Operations	(230,953)	(137,480)
Total Unrestricted Net Assets	(96,084)	\$48,607
Total Liabilities and Net Assets	\$283,152	\$503,913



Tech's Best To Be Lauded at Gold & White Honors Gala

At the Gold & White Honors Gala, the Alumni Association will bestow honors to recognize outstanding contributions made by members of the Georgia Tech community. The honorees are an inspiration to the next generation of alumni leaders. For more information, visit gtalumni.org/gold&white. Here, the 2014 honorees and the awards they will receive.

THE JOSEPH MAYO PETTIT DISTINGUISHED SERVICE AWARD IS THE HIGHEST AWARD GIVEN BY THE ALUMNI ASSOCIATION. IT HONORS ALUMNI WHO HAVE PROVIDED OUTSTANDING SUPPORT TO THE INSTITUTE AND ALUMNI ASSOCIATION AND WHO HAVE PROVIDED LEADERSHIP IN THEIR CHOSEN PROFESSIONS AND LOCAL COMMUNITIES.



Charles D. Moseley, IE 65, started one of the first venture capital firms in the Southeast in 1983. Noro-Moseley Partners has invested more money in more companies in the Southeast than any other venture fund.

Moseley has served on the boards of the School of Industrial Engineering, The Alexander-Tharpe Fund, the Alumni Association and the Georgia Tech Foundation. As a trustee of the Foundation, he served as a member on the Finance Committee and then as its chair. He has been inducted into the Georgia Institute of Technology Hall of Fame and is a recipient of the John Imlay Leadership Award.



Deborah A. Nash, IE 78, retired in 2003 as senior vice president at Microsoft after a distinguished career. She was twice named one of *Fortune* magazine's 50 Most Powerful Women in Business. Nash has been named to the

College of Engineering's Council of Outstanding Young Engineering Alumni and the Academy of Distinguished Engineering Alumni. She has served on the Georgia Tech Foundation Board of Trustees and the Campaign Steering Committee and as a mentor in the Georgia Tech Alumni Association Mentor Jackets program. She is a past member of the Georgia Tech Advisory Board and an emeritus member of the School of Industrial and



Systems Engineering Advisory Board. She is a member of the Founders' Council, Presidents' Council and The Hill Society, Georgia Tech's most prestigious donor recognition society. Nash is also active as a volunteer and philanthropist in the community.

Stephen P. Zelnak, IM 69, grew Martin Marietta's aggregates division from a \$140 million business to a \$2.2 billion empire. Zelnak currently serves as chairman of the board of Martin Marietta. He was inducted into the College of

Business hall of fame in 2008 and serves on the college's advisory board, and he has given generously to Georgia Tech, including endowing a dean's chair in the College of Business. In 2008, Zelnak contributed \$4.5 million toward the construction of the Zelnak Basketball Center, a new practice facility for the basketball teams. He also serves on the Georgia Tech Foundation Board, the Alexander-Tharpe Fund Board and the Capital Campaign Steering Committee.

THE DEAN GRIFFIN COMMUNITY SERVICE AWARD RECOGNIZES ALUMNI WHO HAVE PERFORMED EXEMPLARY COMMUNITY SERVICE.



Tommy Holder, IM 79, is chairman of the board of Holder Construction Company, one of the largest contractors in the state. He has served in leadership roles in the Woodruff Arts Center, Young President's Organization and Kennesaw State University, among others. He currently serves on the boards of the Georgia Tech Foundation, the Georgia Historical Society and the Children's Healthcare of Atlanta Foundation, where he serves as chairman. He is president-elect of the Rotary Club of Atlanta.

THE OUTSTANDING YOUNG ALUMNI AWARD HONORS ALUMNI UNDER 40 WHO HAVE DEMONSTRATED OUTSTANDING LEADERSHIP AND SERVICE TO GEORGIA TECH, THE ALUMNI ASSOCIATION, THEIR COMMUNITY AND THEIR PROFESSION.



David Andrew Bottoms, Mgt 01, is the youngest member of the Georgia Tech Founders' Council and serves on the College of Business Advisory Board and is a member at large on the Alumni Association Board of Trustees. Bottoms, who is also active in the community, serves as the vice president of benefits and communication at The Bottoms Group.

THE HONORARY ALUMNUS AWARD HONORS ANY NON-ALUMNUS WHO HAS DEVOTED HIMSELF OR HERSELF TO THE GREATER GOOD OF GEORGIA TECH.

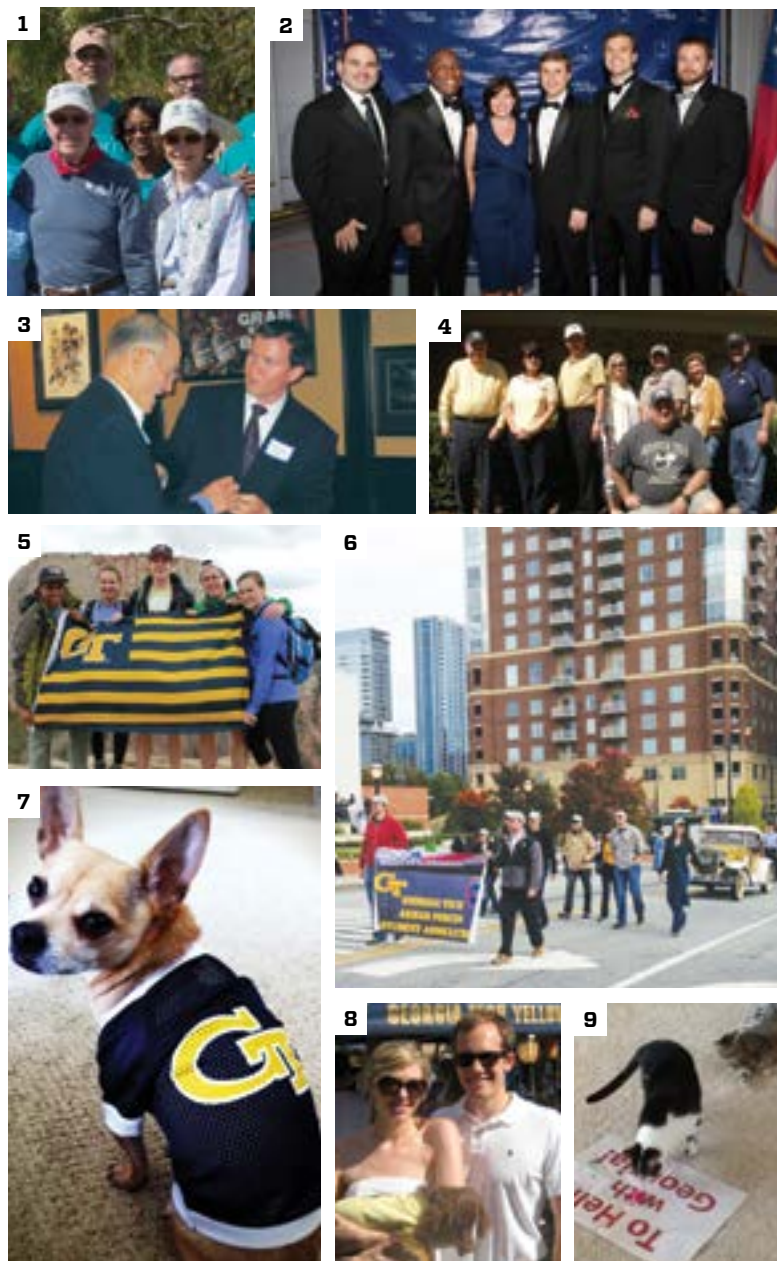


Brenda E. Nease first came to Tech in the early 1960s when her husband, Mac, enrolled. Over the years, Brenda has supported the Georgia Tech Alumni Association and the Georgia Tech Foundation at countless functions and through initiatives to advance Tech. She and Mac, IM 65, also have given to the Institute with tremendous generosity. Nease serves on Emory University's Winship Cancer Institute advisory board.

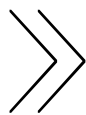


Robert M. Nerem joined the faculty of the Georgia Tech School of Mechanical Engineering in 1987 as the Parker H. Petit Distinguished Chair for Engineering in Medicine, with an additional appointment in the School of Chemical and Biomolecular Engineering. His bannered career in bioengineering now stretches over five decades. Nerem is director of the Georgia Tech/Emory Center for the Engineering of Living Tissues; is the former director of the Parker H. Petit Institute for Bioengineering and Bioscience; and is the former senior adviser in the National Institute of Health's National Institute for Biomedical Imaging and Bioengineering. He and his wife, Marilyn, recently established the Marilyn R. and Robert M. Nerem faculty chair or professorship in the Petit Institute for Bioengineering and Bioscience, where he is now professor emeritus.

Out & About



1. President Jimmy Carter, Cls 46, and his wife, Rosalyn, participate in their 30th annual Habitat for Humanity Work Project. Michael Zung, BME 92, standing behind the president, also volunteered. **2.** L-R: David Touwsma, IE 97; Jerald Mitchell, MBA 11; Lynn Durham, Tech assistant vice president; Tyler Townsend, IE 98; David Bottoms, Mgt 01; and Cal Wray, MS IA 03; are inducted into the 2013 class of Leadership Georgia. **3.** The Phi Delta Theta alumni club welcomes Charles Smithgall, IM 65, to speak at a fraternity networking event. **4.** Members of the Georgia Tech Columbus, Ga., Network spend TEAM Buzz day volunteering at the Anne Elizabeth Shepherd Home in Columbus. **5.** L-R: David Byas-Smith, CS 13; Amelia Gonzalez, current student; Stephen Webber, BA 13; Matthew Beaver, Mgt 11; and Patty Reilman, ME 12, pose atop Angels Landing in Zion National Park. **6.** Alumni veterans and student ROTC members participated in Atlanta's Veterans Day parade. **7.** Kristin Echerd, Chem 07, and her husband, Lee, Bio 07, always cheer for the Jackets with Carlos, their Chihuahua. **8.** Laurel Mayes Floyd, Mgt 06, and Wes Floyd, CS 06, pose with their long-haired mini dachshund, Charlie. **9.** A reader who wanted to be known only as Sam sent in this photo of his cats, who clearly know the Good Word.



Have a new job or other news
to share? Email details to
ramblinroll@gtalumni.org.

1970s

H. Vernon Anderson, EE 73, was the keynote speaker at the first annual Conference on Cardiology and Cardiovascular Medicine Research in Singapore, with a presentation titled "Challenges in Global Cardiovascular Research." He is a professor of medicine at the University of Texas Health Science Center. He lives in Houston.

D. Albert "Bert" Brannen, Psych 78, was named one of the "Legal Elite" by *Georgia Trend* magazine, a listing of Georgia's top attorneys. He was recently promoted to managing partner of the Atlanta office of Fisher & Phillips, LLP.

Steve Collins, IM 70, retired as an IT director at the Federal Reserve Bank of Atlanta after 32 years with the organization. He lives in Decatur, Ga.

Stephen R. T. Evans, EE 76, was elected vice chair of the American Board of Surgery for 2014-2015. Evans is currently MedStar Health executive vice president for Medical Affairs. He will serve as chair of the American Board of Surgery in 2015-2016.

Stanely C. Kimer, MgtSci 77, was presented with an inaugural "Leaders in Diversity" award by the *Triangle Business Journal*. He is a marketing programs manager for IBM and lives in Raleigh, N.C.

Keith Fleming, ME 87, was named Metro Atlanta's 2013 Volunteer of the Year by the J.M. Tull-Gwinnett Family YMCA. Fleming is a board member at the Tull-Gwinnett Y and serves as the board chair. He works as region manager for Allgood Pest Solutions.

LaQuita Hall, EE 89, received *Women of Color* magazine's Professional Achievement-Industry award at the 18th Annual Women of Color Science, Technology, Engineering and Math conference in Dallas, Texas. Hall is vice president of business operations at AT&T.

Michael Sutcliff, EE 85, MS Mgt 87, was named group chief executive of Accenture Digital. He previously led Accenture's financial services operating group. He lives in Milton, Ga.

Samuel Vincent Tidwell Sr., ME 80, received a professional

1980s

Herbert V. Congdon II, EE 86, was promoted to vice president of Telecommunications Industry Association. He lives in Arlington, Va.



Ezzard Named New Face of Civil Engineering

Lanelle Ezzard, CE 10, was named one of the 10 New Faces of Civil Engineering by the American Society of Civil Engineers. As a public assistance project officer, Ezzard worked with the Federal Emergency Management Agency on rebuilding efforts after Hurricane Sandy, spending nine months on Long Island, N.Y., working six days a week to restore the region and securing almost \$4 million in disaster assistance grant funding. Ezzard also works closely with FEMA's Risk Mapping, Assessment and Planning Program and flood insurance studies, for which she has done hydrologic and hydraulic modeling in several Southeastern states to identify flooding risk.

certification as a resident building inspector. He is the former president of MCA and lives in Dunwoody, Ga.

Al Trujillo, AE 81, was named to the SCANA Corporation board of directors. Trujillo is chief operating officer of the Georgia Tech Foundation and currently serves on the board of Haverty's Furniture.

1990s

Patrick Blessinger, MS Mgt 97, is the founder and leader of HETL, the world's largest educational non-profit association. He lives in Kew Gardens, N.Y.

Melissa M. Carter, CE 95, MS EnvE 98, was elected as vice president of MWH Global. She is the senior

project manager and commercial manager for East Region of Government and Infrastructure. She lives in Boston, Mass.

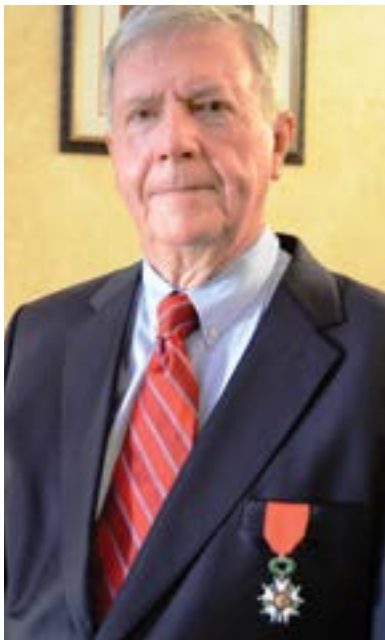
Paige Colwell, Math 90, was named the first female battalion chief of the Forsyth County (Ga.) Fire Department. Colwell has worked full-time for the department since 2001. In 2005, she became the first woman to be appointed to a full-time lieutenant position in Forsyth County.

Richard Johnston, Arch 94, MS Arch 02, was hired as project manager of Pieper O'Brien Herr Architects. He lives in Alpharetta, Ga.

Bing Kao, ChE 97, completed his first Ironman triathlon at Ironman Texas on May 18. One week later, he finished his first 24-hour-plus Spread Your Wings race in Rocksprings, Texas.

Bohler Receives France's Highest Decoration

Donald Bohler, ME 62, was awarded the Legion of Honor, the highest decoration given by the French government. Bohler, a retired U.S. Air Force Colonel, was honored for his exemplary personal courage and dedication to the memory of fallen veterans. In 2009, he located the surviving flight leader and family members of a fallen U.S. fighter pilot who was to be memorialized by the French government alongside French veterans. More recently, he was asked to help find the families of 10 World War II Air Force crewmen whose B-17 crashed landed and captured by German forces off the coast of Noirmoutier, France; once Bohler located the men's descendants, they were invited to attend ceremonies in the village marking the 70th anniversary of the crash. The Legion of Honor is a merit-based order established by Napoleon Bonaparte in 1802.



'FROM MOUNTAIN LIONS TO HOUSE CATS'



When **Clyde Brooks, IM 64**, graduated from Tech, he wanted to pursue a veterinary career, but he'd committed to four years in the Air Force. After completing his service, he relied on the GI Bill to fund his veterinary education at the University of Georgia. Since then, Brooks has practiced in Charleston, S.C., and Brevard, N.C., where he established Mountain View Veterinary Hospital. He said he's been able to "treat just about everything from mountain lions to house cats and many species in between." In 2005, Brooks sold his practice to Brevard Animal Hospital, where he continues to work. He also served as chairman of the Friends of the Animal Shelter in Transylvania County and has published two books: the nonfiction *Tending Critters in the Ridges* and *Sir Hops-a-Lot*, a picture book. "Being a veterinarian has been a very satisfying career," Brooks says. "I like the challenge of treating a patient that cannot tell me verbally about its ailments or concerns and looks to me to put him back on the road to health."



Eagans Helms Northwest Harvest



Eu-Wanda Eagans, IE 94, was appointed as chief operating officer of Northwest Harvest, Washington state's only nonprofit food bank distributor. Eagans, who holds an MBA from Columbia University, most recently worked as assistant commissioner of the State of Washington's employment security department, and previously worked for General Motors and Energizer. She lives in Seattle.

Karen Kennedy, ChE 97, was selected as one of 81 engineers to participate in the National Academy of Engineers' 19th Annual Frontiers of Engineering symposium. She is a senior principal engineer at the Global Technology Center. She lives in Breinigsville, Pa.

Rishad Patel, IE 08, joined Kilpatrick Townsend & Stockton as an associate. He was previously a judicial law clerk.

Blaine Zern, PhD BME 09, joined the Michael Best & Friedrich law firm's intellectual property group as a patent scientist. He was previously a fellow at the University of Pennsylvania Center for Technology Transfer. He lives in Manheim, Pa.

2000s

Shane Bailey, IE 02, was hired as workforce strategy manager for the Home Depot supply chain. He lives in Acworth, Ga.

Robert Luke, ME 05, transferred from Burns & McDonnell's Dallas-Ft. Worth office to its southeast office in Atlanta. He is a senior mechanical engineer.

Michael C. Owens, MS MoT 05, was named vice president of policy and government affairs for the National Black Latino Council on Sept. 18. He lives in Mableton, Ga.

2010s

Priya Boyington, IE 11, is on an externship from Bain and Company working for a GoldieBlox, a startup company that makes toys to encourage girls to become engineers.

Corbin Klett, AE 12, co-founded Atlanta Harvest, a local-food distribution and farming company that will soon be growing fresh produce in one of Atlanta's food deserts. He lives in Atlanta.

Wells Appointed to Anderson Foundation Board

John Wells, IM 84, was appointed to the advisory board of the Ray C. Anderson Foundation, the nonprofit organization created in honor of the late carpet industry entrepreneur and environmental sustainability figurehead. Wells is president and chief executive officer of Interface Americas, the carpet company Anderson, IE 56, HON 11, founded in 1973. At Interface, Anderson launched the ambitious sustainability efforts that, through research and funding, the foundation carries on today. At Interface, Wells worked closely with Anderson to implement the programs needed to meet its sustainability mission, and has since grown the company into an industry leader with a goal to eliminate any negative environmental impact by 2020. Wells serves on the board of trustees of the Georgia Tech Foundation and lives in Atlanta with his family.



WEDDINGS



1



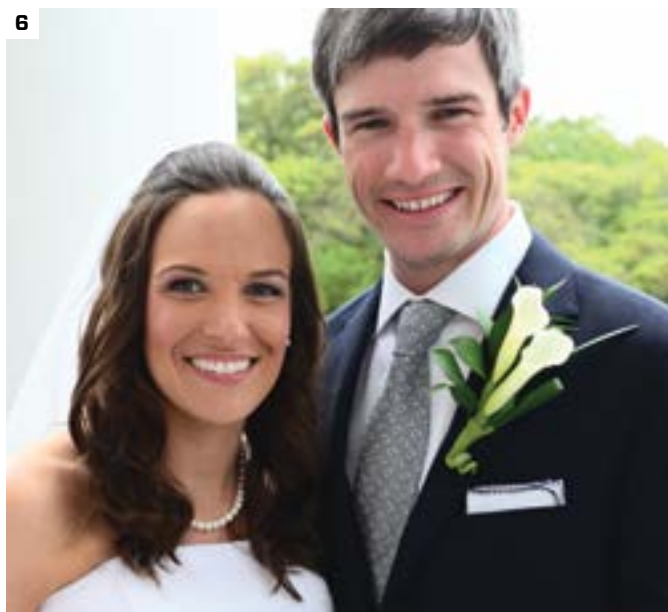
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3



4



6



5

1. Cheryl Watts, IE 02, and Matthew LaFoy on Aug. 3 in Atlanta. Cheryl is director of events operations at Georgia Tech Athletics. They live in Atlanta.

2. Ryan Johnson, IE 05, and **Caroline Jones, IE 09**, on April 20 in St. Simons Island, Ga. Ryan is a project manager at GDS Associates. Caroline is a quality engineer at Numerex. They live in Atlanta.

3. Daniel Giglio, EE 09, and **Laura Kishima, EE 10, MS ECE 11**, on May 11 in Hilton Head Island, S.C. Laura

is the student organizations manager at the Georgia Tech Alumni Association. Danny is a project manager for Inglett & Stubbs. They live in Mableton, Ga.

4. Scottie-Beth Fleming, AE 09, MS AE 13, and **T.J. Lindsley, IE 04**, on Oct. 19 in Atlanta. T.J. is an engineering manager for Oracle. Scottie-Beth is a PhD student at Georgia Tech.

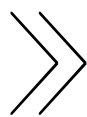
5. Linnea Ignatius, IAML 09, and **Thomas Porter, BC 09**, on Sept. 21. Linnea is an attorney. Thomas is a project

manager. They live in Atlanta.

6. M. Jarrett Sappington, CE 07, and Amber Reed on May 18 in Virginia Beach, Va. Jarrett is an investment associate at Prudential Real Estate. They live in Atlanta.

Matthew Sovitski, ME 08, on Dec. 25, 2012. They live in Anchorage, Alaska.

Matthew Sweeney, CE 04, and **Katherine Wright, IA 08**, on Sept. 28 in Decatur, Ga. They live in West Virginia.



Welcomed a future Yellow Jacket into your family? Send a photo and note to ramblinroll@gtalumni.org.



BIRTHS

1. Margarete Holubar Bane, Bio 06, and her husband, Adam, welcomed son Everett in December 2012. They live in Atlanta.

2. Michael Brightwell, ME 09, and his wife, Yovana, welcomed son Logan Michael on June 8.

3. Wendy Crisman, Mgt 04, and her husband, Mike, welcomed son Owen David on Feb. 19. He joins big brother Cater, 3. Wendy is a contracting officer at NASA's Johnson Space Center. They live in Pearland, Texas.

4. Kathryn Lyall, BME 06, and **Andrew Hunt, PhD CerE 93**,

welcomed son Andrew Gray Hunt on Sept. 24. Kathryn is a development engineer for Intuitive Surgical. Andrew is CEO of nGimat Company. They live in Atlanta.

5. Michael Lance, AE 86, and his wife, Jennifer, welcomed sons Abbott Michael and Rinker Atwell on May 28. Michael is a software engineer for Frontline Test Equipment.

6. Mark McCord, CE 02, and his wife, Stacey, welcomed son Jacob Daniel on Aug. 12. Mark is chief engineer for Southeast Culvert. They live in Alpharetta, Ga.

7. Megan Stieg, AE 09, and her husband, Mike, welcomed son Isaac Alan on July 27. Megan is a lead engineer at GE Aviation. They live in Cincinnati.

8. Andrew Tebbano, EE 00, and his wife, Rebeca, welcomed daughter Isabella on June 29. They live in Lexington Park, Md.

9. Lauren, Arch 05, and **Ross Wallace, M Arch 10, M CP 10**, welcomed son Garreth on Aug. 15. Ross is an urban designer at Epsten Group. Lauren is a certifications department manager at Epsten Group. They live in Atlanta.

The Leadership Circle is the cornerstone of Roll Call, Georgia Tech's annual fund. By becoming a member of the Leadership Circle, you help ensure Tech's prominence and adaptability in an ever-changing world.

Join one of our leadership giving clubs and enjoy benefits such as a limited edition tie or scarf and an invitation to the annual President's Dinner.

A tradition of leadership has evolved at the Georgia Institute of Technology over many generations ... we hope you'll join us.

THE CORNERSTONE OF ROLL CALL IS LEADERSHIP

"We give back in appreciation for what Georgia Tech enabled us to achieve and so others can benefit from the knowledge, skills, and experience that Tech provides."

— JOCELYN M. STARGEL IE '82, MS IE '86 AND ROBERT N. STARGEL, JR. EE '83
(EXECUTIVE COMMITTEE MEMBER, GEORGIA TECH ALUMNI ASSOCIATION BOARD OF TRUSTEES)
30 CONSECUTIVE YEARS OF ROLL CALL GIVING AND LEADERSHIP CIRCLE SINCE 2001



THE GIVING CLUBS OF THE LEADERSHIP CIRCLE

BURDELL SOCIETY
a gift of \$25,000 in support of Roll Call

PHOENIX CLUB
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TRADITIONS CLUB
gifts between \$5,000 and \$9,999

TOWER CLUB
gifts between \$2,500 and \$4,999

CORNERSTONE CLUB
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LEADERSHIP
CIRCLE



in memoriam



1930s

James Lanier Doom, Arch 36, of Black Mountain, N.C., on Oct. 24. Architect, Robert & Company. Minister and consultant, Presbyterian Church.

Ivey O. Drewry, ME 39, of Huntsville, Ala., on Dec. 3. Army (Brig. Gen., Bronze Star), WWII.

John R. Neves Jr., IM 39, of Ellijay, Ga., on Oct. 26. Air Force (Lt. Col., Reserve Medal, Victory Medal, Bronze Star, campaign medals), WWII. Warner Robins Air Logistics Center.

Robert Carter Cauthorn, IM 49, of Tucson, Ariz., on Sept. 17. Army, WWII. Professor, University of Arizona and West Virginia University.

Sylvan H. Chasen, BE 46, of McLean, Va., on Nov. 14. Navy. Instructor, Georgia Tech. Statistician, Naval Air Test Center. Lockheed Martin. Author.

Louis Daniel Conn Jr., ME 48, of Memphis, Tenn., on Sept. 23. Army Air Corps, WWII. Dover Elevator Corporation.

Fred Dixon, Phys 48, MS Phys 49, of Bethlehem, Pa., on Sept. 28. Research scientist, Georgia Tech Research Institute.

Charles Fears Jr., CIs 46, of Reedville, Va., on Nov. 1. Navy, WWII. C&P Telephone Company. Verizon.

Kenneth G. Forrer, GE 47, of Newark, Ohio, on Nov. 22. Air Force, WWII. Meteorology engineer, Newark Air Force Base.

James Grodsky, CerE 43, of Deerfield Beach, Fla., on Aug. 26.

E.B. Harwell Jr., CE 45, of Athens, Ala., on June 6. Army (Engineer). Department of Defense. U.S. Army Missile Command. Redstone Arsenal.

Charles G. Hurst, Arch 48, of Smyrna, Ga., on Nov. 10. Army (Purple Heart). Special agent, FBI.

Thomas H. Kenton Jr., CE 48, of Saint Louis, Mo., on Nov. 12. Executive, Westinghouse. Chairman, St. Louis Children's Hospital. Son: Thomas Kenton III, IM 76.

Robert Harris Laughlin, IM 49, Varnville, S.C., on Sept. 20. Air Force, WWII. Information processing manager, Westinghouse.

Charles Augustus Marmelstein Jr., CE 47, MS CE 48, of Eagle River, Alaska on Nov. 4. Army Corps of Engineers (Capt.), WWII. Engineer. Author. Instructor, Georgia Tech.

Edwin Phillip Maxim, IM 49, of Easton, Md., on Oct. 12. Marines, WWII. Internal Revenue Agent. Power boater.

Roy N. McCowen, EE 43, of Macon, Ga., on Nov. 25. Army (2nd Lt.).

William H. Palmer, AE 47, Rancho Palos Verdes, Calif., on Sept. 4. Engineer, Aerospace Corporation.

James A. Panagos, IM 48, Chatsworth, Calif., on Oct. 16. Army (Purple Heart), WWII. Stroh Brewing Company. Wife: Margaret "Peggy" Panagos, MS OR 84.

J. Randolph Peeples, CE 42, of Sumter, S.C., on Aug. 19. President, B&R Lumber Supply Company.

Rezin Edward Pidgeon Jr., EE 49, MS EE 61, of Atlanta, on Nov. 22. Navy. RCA Service Company. Principal engineer, Scientific-Atlanta Incorporated. Granddaughter: Elizabeth A. Freeman, BA 13.

John J. Rebeske, ME 43, of Phoenix, Ariz., on Sept. 15. Army Corps of Engineers, WWII. NASA Lewis Research Center. Garrett/Allied Signal/Honeywell.

Henry Franklin Ruffin, ME 48, of Snellville, Ga., on Nov. 4. Navy, WWII. Fiberglass Fabricators.

1940s

John B. Baker, CIs 47, of Crowville, La., on Oct. 31. Navy, WWII. Engineer, Shell Oil Company.

William Arthur Bell Jr., EE 47, of Lizella, Ga., on Sept. 27. Navy (Lt. Cmdr.), WWII, Korea.

Sam Hoyte Blackwell Jr., IM 47, of Tucker, Ga., on Jan. 8. Navy, WWII. U.S. Dept. of Labor.

George Julian Brown, ME 47, of Birmingham, Ala., on Sept. 16. Salesman, Carrier Air Conditioning. Real estate salesman, RealtySouth.

William R. Canals, IM 47, of Land O Lakes, Fla., on Oct. 12. Navy, WWII, Korea. Navy Reserve. INA insurance. Tampa Crossroads. Tampa Crisis Helpline.

Ernest Jackson Schreiber, AE 43, of Brunswick, Maine, on Nov. 4. Flight engineer, United Technologies/Pratt & Whitney.

Robert W. Sheldon, IM 43, of Woodstock, Ga., on Oct. 26. Marine Corp. (Purple Heart). Businessman. Little League coach.

David Albert Springs, EE 48, ME EE 49, Murrells Inlet, S.C., on Oct. 31. Army. Engineer, Southern Engineering Company. Sons: David Springs Jr., EE 78, MS EE 80; Dennis Springs, Cls 77.

Richard T. Symes, Cls 45, of Lafayette, La., on Sept. 25. Army (2nd Lt., Bronze Star, Purple Heart), WWII. Engineer, cotton and sugar industries.

Herman Edward Thiel, IE 48, of Morristown, Tenn., on Nov. 5. Army (1st

Lt.), WWII. Army Reserve (Mjr.). Vice president of manufacturing, Forest Products.

Allan "Mike" Webb, Jr., ChE 49, of Marietta, Ga., on Nov. 7. WWII. President, Cameo Advertising.

John W. Zelinski, CE 43, of Monticello, Minn., on Jan. 30. Navy (Lt.).

1950s

John C. Bedell, IM 59, Saugerties, N.Y. on Oct. 5. Phillips Components/Ferrocube.

James R. Black, Arch 54, of Gulf Breeze, Fla., on Nov. 29. Army (2nd Lt.). Southern Bell.

Otis D. Blake, IM 55, of Griffin, Ga., on Aug. 4. Air Force. Residential contractor, developer and building materials dealer, Blake Builders Supply Company. Owner, Blake Developments and General Storage. Brother: Andrew Blake, IM 57.

James Brazelton, Cls 59, of Heath, Ohio, on Nov. 26. Air Force (Maj.).

Florence "Sonny" L. Breen Jr., CE 50, MS CE 75, of Fernandina Beach, Fla., on Oct. 25. Army. Georgia Department of Transportation. Metropolitan Atlanta Rapid Transit Authority.

Stanley David Bulbin, Text 51, of Miami, on Oct. 14. Navy (Lt.). Director and consultant, Stan Bulbin Custom Builders. Son: Neil S. Bulbin, ME 82.

Bernard J. Dvorscak

AVIATOR

Bernard J. Dvorscak, AE 55, of Atlanta, on Sept. 21. Before enrolling at Georgia Tech, Dvorscak enlisted in the Navy's V-5 Flight Training Program; he was stationed aboard numerous aircraft carriers, flew the F4U-4 and the Banshee Fighter, and was a member of the Navy's first operational jet fighter squadron. At Tech, he was a member of the Yellow Jacket Flying Club. Later, Dvorscak joined Lockheed Aircraft Company as an engineering test pilot and instructor. He was the first pilot to fly-by-wire in the Lockheed C130 Hercules and was part of the first team to perfect in-air flight refueling. In 1959, he graduated from

the U.S. Navy Test Pilot School Class XXI. After retiring from the Navy Reserves as a Captain in 1976, and from Lockheed in 1990, he continued to work: He co-authored *The C-5 Galaxy History*, instructed flight ground school, aided with the assimilation of the National Aerospace Museum in Chantilly, Va., and the development of the Marietta Aviation Museum. He was a member of Silver Wings Fraternity, lectured on the Battle of Midway and the Battle of Britain, and loved singing in his church's choir. Son: Michael Dvorscak, IM 78. Daughter: Joan Paucke, IM 81, MS Mgt 87. Granddaughter: Jennifer Paucke, current student.





James Robert McClure

BUSINESSMAN

James Robert McClure, **IM 51**, of LaGrange, Ga., on Nov. 3. McClure served as a first lieutenant in the U.S. Army as part of the first unit stationed in Germany under NATO, defending the bridges across the Rhine River. In civilian life, McClure owned and operated the McClure Cigar and Candy Company, a division of Hav-A-Tampa. He later worked for Travelers and Metropolitan Insurance Companies.

Joseph M. Chapman Jr., ME 51, of Savannah, Ga., on Nov. 22. Marines. Standard Oil Company. ITT Rayonier. Senior corporate engineer and project manager, Union-Camp Corporation.

John E. Clegg, EE 51, of Severna Park, Md., on Oct. 23. Navy, Korea. Westinghouse Electric Company. Bowler.

E. Turner Collins, Arch 50, of Saint Simons Island, Ga., on Nov. 3. Army, WWII. Salesman, Southern Zonolite Company. Founder, Collins & Company General Contractors. Golfer.

James Donald Cordell, CE 56, of Swannanoa, N.C., on Sept. 17. Army (Purple Heart), WWII, Korea. U.S. Forest Service. Cattle farmer.

William B. Crane, ME 50, of Winston Salem, N.C., on Nov. 25. Army, WWII. Engineering manager, Hanes Hosiery. Son: William B. Crane Jr., EE 79. Granddaughters: Allison Crane, IAML 11; Shannon Crane, Arch 13.

William D. Daniels, IE 56, of Marietta, Ga., on Aug. 30. Son: Mark D. Daniels, ChBE 91.

Robert Lewis Duling, Cls 50, of Decatur, Ga., on Sept. 22. South Central Bell. Boeing Company.

Theodore M. Forbes Jr., Chem 50, of Atlanta, on Sept. 24. Attorney.

James Rodman Franklin, Arch 55, of Monteagle, Tenn., on Oct. 10. Franklin Associates Architects. Owner, Franklin Design Group. Resident fellow and lecturer, Cal Poly. Painter. Author. Brother: Selmon Franklin Jr., Arch 52. Son: James Franklin, MS TSP 83. Grandson: Tyler Franklin, ME 11.

William Bates French, IE 51, of Naples, Fla., on Nov. 4. Army (Lt.). General Motors Company. Marshall & Ilsely Bank Civilian aide, Secretary of the Army. Aviator.

William Oliver Fulmer, Arch 50, of Columbia, S.C., on Oct. 22. Historic preservationist. First recipient, South Carolina Governor's Award for Historic Preservation. Chairman, Columbia Landmarks Commission.

Harry Stone Gibson Jr., Chem 53, of Dallas, Ga., on April 28. Air Force (Lt.), Korea. Lockheed Martin.

Claude B. Harris, ME 54, of Alexandria, Va., on July 29.

Milton D. Henson, IM 57, MS IM 62, of Atlanta, on Oct. 30. Army, Korea. Research economist, economic development laboratory at Georgia Tech. Adjunct professor, Georgia Tech. President, Dale Henson Associates. Publisher. Editor. Author.

William S. Higgins, CE 56, of Marietta, Ga., on Sept. 19. Navy (Aviation radioman, 2nd cls.), Navy Reserve. Civil engineer. Vice president, Simons Eastern. Vice president, Starr Parker Associates. Vice president, Welker & Associates.

George Barker Hinson, IE 50, of Huntsville, Ala., on Oct. 2. Army (Lt.), WWII. Engineer. Singer.

Edward Gerald Holmes, MS EE 53, of Atlanta, on Oct. 8. Navy, WWII. Owner, E. G. Holmes & Associates.

Alan E. Hoover, ChBE 57, of Powhatan, Va., on Oct. 30. Navy. DuPont. Patent holder. Fisherman.

W. L. House Jr., IE 50, of Douglasville, Ga., on Oct. 9. President, Douglasville Concrete. Southwire Company.

Carl Clifford Hughes, ME 57, of Raleigh, N.C., on Oct. 16. Army (1st Lt.). Assistant professor, University of South Carolina and Fayetteville State University.

David H. Hughes Jr., CE 59, of Atlanta, on Nov. 9. Structural design engineer, Simons Eastern Company. AMEC.

Sam K. Jolly, ME 50, of Decatur, Ga., on Nov. 22. Army.

Ole Knutsen, ME 50, Jacksonville, Fla., on Aug. 21. Navy. Supervising engineer, Southern Bell Telephone Company. Son: Peter Knutsen, ME 74.

Louis M. Lagoni Jr., CIs 57, of Avon Park, Fla., on Oct. 7. Army. Vocational instructor, Florida State Prison System.

Richard N. Lawrence Jr., AE 58, of Madison, Ala., on Oct. 9. Space Technology Labs. Civil servant, NASA. Granddaughter: Alyssa Lawrence, current student. Grandson: Dylan Lawrence, current student.

Robert Lindegard, CE 55, of River Forest, Ill., on Oct. 1. Air Force. United States Gypsum.

Charley Lindsey, EE 56, of Roswell, Ga., on Aug. 6. Son: Andrew Lindsey, ME 85.

Hugh Boyd Manson, AE 51, of Jacksonville, Fla., on Oct. 4. Air Force (Mjr. Gen., Distinguished Unit Citation Emblem, Legion of Merit, oak leaf cluster).

Director of flight and all-weather testing, Wright-Patterson Air Force Base. Commander, Atlas Site Activation Task Force at Dyess Air Force Base. Deputy chief of Aeronautical Systems Division Wright Patterson Air Force Base. Vice President, Embry Riddle Aeronautical University.

Hayne "Mac" McCondichie, IE 52, MS IE 53, of Ponte Vedra Beach, Fla., on Sept. 19. Army. Satellite designer. Yancey Brothers Co. Founder, Trax, Inc. Commercial real estate development.

Robert H. McCoy, CIs 51, of Rossville, Ga., on Nov. 19. Peerless Woolen Mills. Rossville City Judge. Georgia State Representative. Athlete.

John Thomas Miller, AE 59, MS AE 61, of Manchester, Tenn., on Oct. 18.

Army (cryptanalyst). AEDC. Duck River Development Agency. Experimental Aircraft Association. Civil Air Patrol.

Harry Milton, ME 59, of Murray, Ky. On Sept. 19. Army Corps of Engineers. Chief engineer, Murray State University. Engineer, Lockheed-Georgia Co. Engineer, U.S. Government.

James Thomas Murray, IM 58, of Savannah, Ga., on Oct. 13. General manager, Sears, Roebuck and Company. Deputy chief, Southside Fire Department. Lieutenant, Chatham County Sheriff's Department.

Cyril F. Musser, IM 58, of Atlanta, on Nov. 27. Navy (Petty Officer, 2nd cls.). Attorney, Sears, Roebuck and Company.

George Benjamin Pennington, Text 50, of Atlanta on Oct. 8. CPA, G. A. Pennington & Company.

Lawrence Peterfreund, EE 50, of Knoxville, Tenn., on Nov. 27. Army Air Corps, WWII.

Luther Palmer Pugh, CIs 58, of Kingston, Tenn., on Sept. 22. Oak Ridge National Laboratory.

L. Neal Smith Jr., IM 55, of Atlanta, on Nov. 6. Navy. Scott Equipment Company.

Norman Tarlin, CIs 54, of Mashpee, Mass., on April 22.

Charles W. Thompson, IE 57, of Savannah, Ga., on Nov. 29.

Leon Francis Thomson, IM 53, of Rome, Ga., on Nov. 18, 2012.

James E. Trent, EE 50, MS IM 52, of Raleigh, N.C., on Nov. 12. Navy, WWII. IBM. Son: Douglas Trent, EE 78, MS CS 79.

Jack L. Wood, CIs 53, of Macon, Ga., on Nov. 29. Army Reserve (Lt.). A.S. Hatcher Company.

Richard A. Parks

ARTIST AND ORNITHOLOGIST

Richard A. Parks, Arch 43, of Atlanta, on Dec. 14. Naval officer, World War II. At the time of his death, he was the resident artist and last living charter member of the Georgia Ornithological Society. Parks was also a member of the Atlanta Bird Club, the American Ornithologist's Union, the Wilson Ornithological Society, the National Audubon Society and the Atlanta Audubon Society, and he was a charter member of the Georgia Conservancy. His art collection—which includes more than two hundred paintings with field notes, studies and working sketches—is housed at the Hargrett Special Collections library at the University of Georgia.





1960s

William Clarke Ambrose Sr., ME 60, of Smyrna, Ga., on Oct. 10. Air Force. Engineer, Georgia Power Company. Son: Clarke Ambrose, ME 89.

John M. Bailey Jr., PhD EE 60, of Knoxville, Tenn., on Oct. 12. DuPont. Professor emeritus, University of Tennessee. Adjunct participant, Oak Ridge National Laboratory. Patent holder.

Edward L. Beeson Jr., PhD Phys 60, of New Orleans, on Sept. 20. Navy (Cmdr.), Korea. Physics professor, University of New Orleans. Naval Oceanographic Office. Son: Bradley Beeson, ME 86.

William Frank Cain, CE 62, of Matthews, N.C., on Nov. 3. Partner, William E. Edwards Engineers. Associate, Saki & Russ Engineers.

Edward Carron, IE 60, of Navarre, Fla., on Oct. 16. Air Force (Col. Lt., Distinguished Flying Cross, Bronze Star, Air Medals, Air Force Commendation Medals,

Meritorious Service Medals, Air Force Achievement Medal), Vietnam, Korea. L-3 Communications.

Marion Willson Corey, PhD CE 68, of Kansas City, Mo., on Sept. 28. Navy (Lt. Cmdr., Bronze Star). Professor, Mississippi State University. Engineer, Gulf States Manufacturers. Systek. Enviro-Labs. Consultant, Army Corps of Engineers.

Robert Chatfield Dark Jr., Text 63, of Birmingham, Ala., on Oct. 27. Army (Capt.), Army Corps of Engineers. President, Dark Alexander & Company. Brother: William Allen Dark, MS CE 65.

Robert Earl DeLoach Jr., MS SanE 68, of Marietta, Ga., on Sept. 22. Air Force.

James R. Epps, IM 63, of Lake City, S.C., on Oct. 13. Attorney. Chairman, Red Cross. FBI. Teacher. Founder, Lake City Development Corporation. City attorney, Lake City, Scranton, Pamplico. Attorney, James R. Epps.

Mebben M. Eudy Jr., ME 65, of O'Brien, Fla., on April 19. Army (Capt.). Vietnam. Engineer, General Electric Company.

David Walter Ford, IM 67, of Greenville, Tenn., on Sept. 30. Army, Vietnam. Vice president and chief financial officer, Holston United Methodist Home for Children.

James F. Grondin, MS ME 65, of Enterprise, Ala., on April 21. McDonnell Douglas. Vice president of manufacturing services, Kleinerts.

Roy Marshall Judson, BS Arch 60, B Arch 65, of Gainesville, Ga., on Oct. 7. Navy. Architect. Engineer, Georgia Power. Adjunct professor, Georgia Tech.

William Owen Leach Jr., IM 61, of Gadsden, Ala., on Oct. 15. President, Leach & Company. Son: William Leach, Mgt 89.

Robert C. Lyon, EE 63, of Marietta, Ga., on April 29, 2011. Engineer, Lockheed Martin.

V. Gordon Moulton, IM 64, of Mobile, Ala., on Sept. 28. President emeritus, University of South Alabama.

Fred Lee Nix, AE 61, of Marietta, Ga., on March 10. Air Force. Lockheed Martin. AT&T. Lee Custom Homes.

Phillip Webb Potts, IM 62, of Dunwoody, Ga., on Sept. 21. Economic development coordinator, DeKalb County Government.

Frederick H. Ruggles Jr., MS CE 63, of Canaan, Conn., on Sept. 23. Army, WWII. Hydrologist, U.S. Geological Survey and Department of the Interior.

William Sailors, Text 60, of Camden, S.C. on July 4. Tyco Healthcare. Plant manager, Kendall Healthcare Products Company.

Richard Neel Sendler Sr., IE 66, MS IE 68, of Columbia, S.C. on Oct. 7. Army. Vietnam. Shift supervisor, Union Carbide Corporation. Owner, Sendler Construction Company. Brother: Edward P. Sendler, IE 59.

Paul McKay OCEANOGRAPHER

James Paul McKay, AE 94, of New Orleans, on Nov. 5. In an obituary printed in the *New Orleans Advocate*, he was described as "the kindest man on earth," who "fly-fished streams in the Smoky Mountains, ate mussels in Paris, sunburned in Bora Bora, produced plays in Atlanta and second-lined every chance he got." McKay loved the Gulf Coast and the New Orleans bayou, and was employed as an oceanographer at the Naval Research Laboratory, where he researched and predicted water dynamics. "In lieu of flowers," his obituary requested, "please take a child fishing, buy a stranger's meal, or pay it forward in a way that would make Paul smile."

Spotswood D. Stoddard, Phys 65, MS Phys 69, PhD Phys 73, of Gainesville, Va., on July 6. Professor. Systems architect. Author.

William Lawrence Toney Sr., IM 67, of Lehigh Acres, Fla., on Oct. 10. Owner, Toney Services.

John H. Underwood, TextChem 66, MS Text 68, of St. Simon's Island, Ga., on Nov. 15. Phillips Petroleum. Hoechst Celanese. Director, Rayonier.

Richard H. Volavka, ChE 67, of Birmingham, Ala., on Nov. 2. Babcock & Wilcox Company. Southern Company. Sons: Michael Richard, CE 00; Kevin Sapough, Math 92. Daughter: Jessica Sapough, ChBE 97

Richard G. Vollaro, IM 69, of Atlanta, on Sept. 17. Navy (Cmdr.). C&S Bank. Coca-Cola Company. General manager, *Atlanta Journal Constitution*. RGV Enterprises.

1970s

Adolfo "Al" Arango Jr., Phys 72, of Dothan, Ala., on Nov. 17. Land surveyor. Founder, architectural drafting company. Otis Elevator Company. Director of plant operations, Palmetto Hospital, Parkway Hospital and North Shore Hospital. Director of Engineering, Cross Continent Aircraft Services. Consultant, Air Angles. Pemco. AFS & Dyncorp. Sikorsky. Designated engineering representative, Federal Aviation Administration.

John Littleton Beckett, BMgt 73, of Acworth, Ga., on Nov. 3. Banker.

Wayne Britz, MS NE 71, of Saint Paul, Minn., on Oct. 23. Merchant Marine. U.S. Atomic Energy Commission. Manager of radiation protection services, PSE&G. United Arab Emirates Federal Authority for Nuclear Regulation. President, Savannah Nuclear Association.

Stephen A. Eggers, MS IM 77, of Atlanta, on Sept. 14. Founder and chief financial officer, Dowden Communications. Chief financial officer, Fisher Precision Spindles. Brother: Andrew Eggers, IM 75.

Jeffery Kennington, MS IE 70, PhD IE 73, of Dallas, on Nov. 26. University distinguished professor, Southern Methodist University.

Samuel M. Norwood, ChE 73, of Long Beach, Calif., on July 19.

Charles Lamar Rawls, IM 71, of Birmingham, Ala., on Nov. 4. Air Force. Assistant marketing director, Columbus Foundries. Vice president of marketing, Alabama Ductile Iron Co. Assistant marketing director, Citation Corp. Vice president of marketing, Noblesville Foundry. Assistant marketing director, Wheland Foundries. Metlife.

George William Rivers Jr., EE 77, of Greensboro, Ga., on Sept. 30. Navy, Vietnam. Owner, Rivers Engineering. Son: Brian Rivers, ME 95.

Billy Richard Trussell, AE 75, of Warner Robins, Ga., on Oct. 16. Civil servant, Warner Robins Air Force Base.

James Jolly Waldeck Jr., MS IE 71, of Williamsburg, Va., on Nov. 15. Army (Col., Silver Star, Bronze Star, Purple Heart, Air Medal, Legion of Merit, Meritorious Service Medal, Army Commendation Medal), Vietnam.

Luther A. Wright Jr., IM 76, EES 78, of Macon, Ga., on Oct. 27. Flowers Foods.

1980s

Jeffrey B. Bentley, ICS 88, MS ICS 89, of Norcross, Ga., on Aug. 28. Wife: Andrea C. Bentley, CS 91.

Edmund "Peter" Burke, MS ICS 86, of Hartwell, Ga., on Oct. 13. Lawyer, Altman & Kritzer & Levick; Powell

Goldstein & Murphy; and Sutherland Asbill & Brennan. Counsel, Digital Communications Associates Incorporation. Adjunct professor, Georgia Tech.

Roy "Greg" Carscallen, MgtSci 82, of Suwanne, Ga., on Dec. 1. Anderson Consulting. Consultant, Norrell. Chief operating officer, MDP. Vice president, BravePoint. Son: Christopher A. Carscallen, current student.

A. Bryan Fletcher, EE 83, of Locust Grove, Ga., on Oct. 7. Vice president of supply chain management, The Southern Company.

Cayce Hunnicutt Girardeau, MS Mgt 86, of Savannah, Ga., on Oct. 26. Director of Human Resources, The Landings Association. Founder, Savannah Fun Tours.

William C. Maddox Jr., EE 81, of Savannah, Ga., on Aug. 25.

Margaret "Peggy" Panagos, MS OR 84, of Chatsworth, Calif., on Oct. 19. Risk analysis. Husband: James A. Panagos, IM 48.

George Gregory Richards, Arch 87, of Atlanta, on Dec. 27. Principal architect, Bradfield, Richards and Associates.

Gary L. Turbeville, ICS 82, of Boca Raton, Fla., on Aug. 31. Engineer, IBM. Radysis. Consultant.

1990s

Eric Mallis, Mgt 99, of Clearwater, Fla., on Sept. 12. Senior research associate, Raymond James Financial.

2000s

Arash K. Babazadeh, IE 06, of Atlanta, on Sept. 28. IBM.



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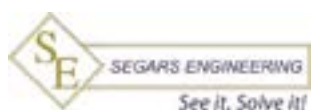
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CHAI, 1968-1976



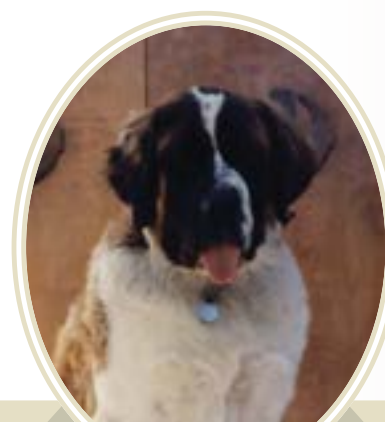
BRANDY, 1976-1984



Lambda Chi Alpha

Georgia Institute of Technology

St. Bernards



SANDY, 1984-1993



RENE, 1993-2002



COLE, 2002-2009



MASON, 2009-



The Hounds of Techwood Drive

📍 Rachael Maddux and Mitch Ginn, Arch 82, M Arch 85

In 1968, Ron Blum, CE 71, and some fellow Lambda Chi Alpha brothers agreed that they needed a mascot. “We decided to add some class and some pizzazz to the fraternity—to get a dog,” he says. “I do not remember who decided that a St. Bernard was the dog of choice.” ¶ Since then, the fraternity’s house on Techwood Drive has been home to a procession of six giant, lovable canines. When a new pup is brought in, a few brothers are appointed as “High Dogs” and assume responsibility for its training, care and feeding. When the dog gets too old to comfortably live among a house of rambunctious young men, one of these “High Dogs” usually steps in to provide a quiet home for the dog’s retirement. In between, hijinks ensue. Here are just a few reminiscences from over the years.

Chai, 1968-1976

Ron Blum, CE 71: “Chai was a hit from day one. We taught him to drink out of the second floor water fountain, as it was a pain always filling up his water bowl. The slobber on the fountain was disgusting—except when guests went to drink out of the fountain. To see their faces!”

Mike Heffner, ChE 70: “My favorite memories of Chai are when he stayed by my side most of the night while I laid in wait in the hedge to ambush a KA (no, I can’t remember why), and when we sent him out Sunday morning to search for a brother

after he overdid it on loganberry flips the night before. Chai immediately noticed his arm dangling high above from the tree house in the front yard.”

Steve Buffington, IM 77: “The famous ‘Chai bite’ happened after a massive fraternity streak during 1975 or ’76, when streaking was all the rage. Everyone was back in front of the house having a good old time. Dean Dull drove up and jumped out of the car, trying to calm things down. Chai became agitated and bit at his car’s front right tire, which blew out with a pretty big bang. Dean Dull was pissed but impressed by the power of Chai. We had

to pay for his replacement tire but there were no other repercussions, probably because of the ’70s culture—and Chai’s lovability and reputation on campus.”

Brandy, 1976-1984

Charles F. Adkins, IE 85: “I don’t know what we were doing that night the cop nearly shot Brandy, but a lot of alcohol and fireworks were involved. We were chasing each other through the house, firing bottle rockets. I came out of the hallway by room 106 and lit the fuse on my bottle rocket. Only after it left my hands did I realize a GT cop was standing there with his gun drawn on Brandy. I sobered up in about a half a second.”

Bruce Hartman, ME 86: “I can remember Brandy being able to hold steady without flinching while a juicy slice of roast beef covered in gravy was placed over her nose. With every drop of gravy that hit the floor, Brandy strove to not drown in her own drool until she was given the OK signal to eat the treat. This was accomplished with a quick but fluid head and neck twisting motion. In one gulp, the morsel was gone.”

Ken Kelly, IE 81: “Usually Brandy would follow me to class and wait outside until

“Dean Dull drove up and jumped out of the car, trying to calm things down. Chai became agitated and bit at his car’s front right tire, which blew out with a pretty big bang. Dean Dull was pissed but impressed by the power of Chai.”

it was over. The day of my first test in Deformable Bodies (the only test before drop date) a student came in late and Brandy followed the student into the class. The prof didn't notice. Brandy found me and laid at my feet, breathing heavily and drooling. With that as a distraction, I failed the test and had to drop DefBods (my first of three times dropping DefBods). After that, I made sure not to take Brandy with me when I had a big test."

Rene, 1993-2002

Ryan Lahm, IE 02: "Rene was famous for escaping the house at night and exploring campus. One night I was on west campus dropping off a date at her dorm. As I was walking to my car, I felt a heavy push on my leg. Scared the crap out of me. When I looked down, I saw Rene. She had spotted me and came over to grab a ride home. When I opened the car door she hopped right in and turned to give me a look that said, 'Can we please get going?' I always imagined Rene had this secret life that no one knew about where she went out at night to explore."

Cole, 2002-2009

David Foley, EE 04: "I picked Cole up from the breeder and helped train him. He enjoyed sitting in the front yard on game day and barking at (and scaring) the opposing teams' fans as they walked by. I graduated in 2004 and left for law school, leaving Cole behind. In 2009, it was time for Cole to retire. I was happy to adopt him. Two active members drove Cole to Dallas from Atlanta. He adjusted well to family life. My wife, Erin Hlasta Foley, CE 04, and I were active in the local GT alumni [network] and were always surprised by the number of alumni who had no connection to Lambda Chi yet remembered Cole. I guess a 200 pound dog is rather memorable. He moved with us to Washington, D.C., in early 2012 and passed away in December 2012 at the ripe old age—for a Saint Bernard—of 10 and a half years." ▲


Mitch Ginn, Arch 82, M Arch 85, is an architect and writer. While a student at Tech, he was a member of Lambda Chi Alpha.

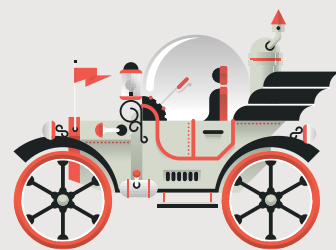




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Time Machine

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10 years ago, in 2004,
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25 years ago, in 1989,
the Nuclear Regulatory Commission cleared Tech to restart its 5-megawatt reactor at the Neely Nuclear Research Center.



50 years ago, in 1964,
a fire destroyed the Post Office building on campus, built in 1898.



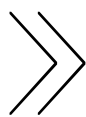
75 years ago, in 1939,
the School of Physics was established.



100 years ago, in 1914,
George C. Griffin, later the long-time dean of students, enrolled at Tech as a sub-freshman.



125 years ago, in 1889,
enrollment of the first class at the Georgia School of Technology reached 129 students.



Helping the Underdogs

Lauren Lipsey, MS IA 07

I love my job, but wish it didn't exist.

There's a photo from my childhood that explains why it's surprising that I grew up and fell into a career in animal welfare. In the photo, I'm sitting on one end of a couch staring down a cat at the other end. On my face is a look of complete and utter fear of and disdain for the animal. But things have certainly changed.

After graduating from Georgia Tech with a master's of science in international affairs, I moved to Santiago, Chile, and had grand ideas of working in economic

development or humanitarian relief. But when I got there, I was amazed by the number of cats and dogs I saw living on the streets. They appeared to have no owners but seemed to be surviving quite well; they had their own routines, knew exactly where to find regular sources of food, where to sleep on rainy nights, and which humans might show them just a little bit of attention. I was amazed by their resilience in the face of such adversity. Many people treated them as

nothing more than worthless, dirty, disease-ridden animals. But I found myself compelled to help them.

My efforts started small. I carried food, water and basic first aid materials in my car in case I came across a dog or cat in need. I volunteered in various capacities for a local grassroots nonprofit and soon became its education chairperson, responsible for directing efforts to spread messages about the value of spaying/neutering, adoption and responsible pet ownership.

Naively thinking these practices were already well accepted in the United States, I was sure my career in animal welfare would be complete upon leaving Chile. Instead, it was just beginning.

When I got back to the states, pure luck and timing afforded me the opportunity to take the position of manager of public relations and outreach at an animal shelter in South Carolina. The organization was small, but our impact was great. When animal lives are at stake, flexibility and the willingness to take on a variety of roles are critical. My position wasn't just handling communications, promoting our cause on weekly TV and radio spots and hosting black-tie fundraising events. I also built fences for dogs that had spent their lives on chains and counseled pet owners to prevent them from surrendering their pets. The job was emotionally challenging, creatively inspiring and time consuming. But it was the most rewarding thing I have ever done.

Since then, I've worked in fundraising and advocacy for the Humane Society of the United States, and again my eyes have been opened to the vast challenges facing animal welfare organizations. I've met chimpanzees rescued from research labs and tigers freed from lives in cramped cages at roadside zoos. I would love for our efforts to be so successful that some day jobs like mine aren't needed. Until then, I've found a passion in life that inspires me each and every day. ▲

Lauren Lipsey lives in Alexandria, Va.

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