

How the Internet Changed Campaigning

By Eric Sembrat

With the 2008 presidential election finally at its conclusion, many talking-heads and political junkies have shifted their keen attention from the details of the election itself to the dramatic political theater that has unfolded over the last twenty-two months. The U.S. has seen its first viable African-American candidate and President-Elect, the oldest first-term candidate, the introduction of catchphrases such as '3 AM' and 'Joe the Plumber' into political lexicon, and a primary and general election like none other. Above all is the emergence of the Internet as a primary source of communication and advertisement during the campaign, specifically through online advertisements and video 'web ads'.

The usage of the Internet in this election has exposed how cheap and efficient it has become to convey a simple message to an ever-growing audience



An example of an in-game advertisement from Burnout Paradise

online. In the 2008 campaign, YouTube became the new frontier in a battle typically dominated by radio and television. Unlike radio and television ads, the only costs for YouTube 'web-ads' are the video production, which drive down the costs considerably. The down-

side for these cost-cutting measures is that the videos do not distribute or play themselves on YouTube. Instead, the videos need to be spread through links on blogs, message boards, chat rooms, IM's, and in some circumstances even

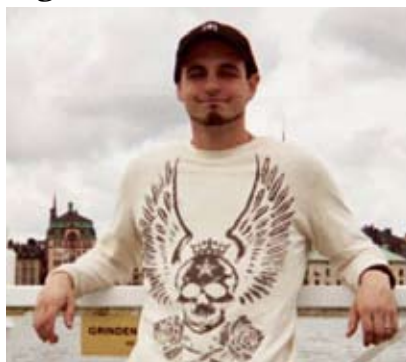
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Mike Stilman's Robot Intelligence is a Class Act

By Stephen Hilber

If you have any interest in making robots do tons of cool stuff in the real world, you owe it to yourself to take CS 4803 - Robot Intelligence: Planning in Action(Yes, it's actually called RIP).

Taught by Mike Stilman, the class doesn't have any prerequisites - anybody who wants to can take the class. You'll learn about planning, kinematic motion, control theory, and pretty much anything else that you need to learn to make a robot move intelligently. The projects are all group-based and satisfying; while they can be a lot of work at times, you're learning a lot about designing and implementing planning algorithms, with custom-made simu-



Dr. Mike Stilman - hard at work

lators letting you know when you attempt to drive your robotic arm straight through the table. Sample student projects include reprogramming a Roomba to be more intelligent and teaching a robotic arm how to successfully play Jenga. It's a class that demands you put in the time you need to make

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Credit for Fun: Oxford

By Abhishek Jain

For a traveler it's an adventure and for a scholar it's history reborn, but for everyone it's the experience of a lifetime. If I were asked to describe my Oxford Study Abroad experience in a sentence these are the words that come to mind. I can vividly remember walking through the historic streets of Brussels, curiously examining the Mona Lisa and ordering a fresh pint of beer from one of the local pubs in Oxford. I have discovered the Oxford Program is the perfect option for any student who wants to experience Europe in its entirety within 10 weeks.

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Real to Reel: Expressing Yourself in the Digital Age

By Jennifer Whitlow

Computational Media, a joint program between the College of Computing and the School of Literature, Communication, and Culture, gives students the opportunity to use computing to express themselves. This exciting degree is the fastest growing major currently on the GT campus, and there's plenty of demand. EA Games, Pixar, Disney and Turner are some of the many companies offering CM students internships, co-ops and full time career opportunities.

The courses within CM involve design classes, film courses and general media studies, many of which focus on using current software such as Maya, Photoshop, Illustrator and Flash. Students

have the option to choose any 2 studio classes, an advanced studio course and any 4 LCC specialty courses. CM students also the option to go into Game Design, Video/Special Effects and UI/Web-design.

As a CM major, I had the opportunity to co-op with Georgia Pacific in the Consumer Products IT group where I worked on the design and development of many of the consumer product websites, including Angel Soft, Dixie, Brawny and Sparkle. I've also seen many of my peers go on to do consulting, create their own start-up companies and have their name featured in the credits of the new NBA Live 2009 video game. A CM degree opens countless doors; after all, when it comes to exercising your creativity, the sky's the limit!

4803 Continued

your project work, but the students in the class find it extremely rewarding.

The best part of the class, however, is probably the professor himself. I have never met anyone more enthusiastic about robots than Mike Stilman; he absolutely loves robotics, and goes out of his way to help you find cool ideas to work on. The excitement he has carries over to the students, who already want to make cool robots. The class is one of the most energetic and involved I've been to at Tech; the information in the class is understandable and immediately applicable, and the students and teacher encourage each other to think outside the box.

If you have any interest in robotics, this is the course for you!

FIRE 1101 : FIREwall's Guide To Registration

By Stephen Hilber

#1: Spend several nights pouring through the course catalog, coming up with the perfect schedule that allows you to take all the classes you want to take at all the best times for you. Smile broadly.

#2: Frown when two of your five classes aren't offered this semester, but smile again when you switch those classes for your carefully chosen backup courses.

#3: Frown again when your backup classes aren't offered either, and dig up a couple of humanities classes to take instead.

#4: Curse mildly when you realize that your top two classes are conflicting, and force yourself to take that math class you've put off so far.

#5: Curse again when you realize that your class schedule has a class at 8:00 AM, 12:00 PM, and 6:00 PM every day.



#6: Discover that your registration block is at 8:00 AM on Sunday morning. Set up three different alarms with fully-charged batteries to maximum volume to make sure you wake up on time.

#7: Wake up at noon on Sunday to realize that you still slept through all of your alarms.

#8: Frantically log in to OSCAR to

discover that every class you wanted to take is already full, and the lab science you wanted to knock out of the way is restricted to freshmen only, preventing you from registering for it - but somehow allowing 50 seniors and juniors to sign up for it before you could.

#9: Smack your head against the desk and start filling out override permit forms, just like you did last year.

Work: Just Google It

By Doug Morgan

For the past two summers, I have been fortunate enough to secure two awesome summer internships at Google: one in summer 2007 in New York City and one in summer 2008 in Mountain View, California. The first summer I worked on the Google Checkout API team and wrote an internal tool to help QA testers, test the efficiency of Checkout. I had complete ownership of the code I wrote, and was able to design and develop how I saw fit. Because of this, I felt like I really accomplished something. When I started, I knew almost none of the technology I needed to, but was able to learn it all on the job. Of course there's ridiculous amounts of free food all over the place—lunch, dinner, snacks, everything—but more importantly the primary mode of transportation inside the New York office was Razor scooters which I raced other interns around the office on (spectacularly wiping out a few times). It was a lot of fun. While the internship itself was awesome, the best part about working that summer was the location in the middle of Manhattan, as I was able to work and play in what is perhaps the best city in the US. I got to do the entire tourist scene, but also got the benefit of living in the city; every night after work, I could experience dozens of restaurants and go out to experience the nightlife. As another plus, I found an apartment close to the office, so I was able to walk to work every day.

This past summer, I was in Mountain View (a town about an hour south of San Francisco). Although the previous summer in New York was cool, this summer was even better. I worked as a Software Engineer intern on the Platforms team—the team that actually works on the low level software and hardware design of Google's servers. My job was to work on a hard

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Study Abroad Continued

If you were to go on a Eurotrip for the summer how would you plan the vacation to receive maximum benefits? The first stops are the spectacular museums Europe offers, of course. The British museum of London, The Louvre of Paris, and The National Museum of Rome are just a few of the world's most historic museums visited on this trip. If it's European music you crave this trip will not disappoint. Mozart's Magic Flute opera, Vivaldi's Four Seasons, and local French jazz music are only a few of the musical flavors experienced on this trip. Local edible delicacies of Europe such as gelato ice cream in Italy, crepes in Paris, Hungarian kebab, and Belgian waffle can be enjoyed throughout the summer. Trips to over twelve countries are packed into this ten week cultural explosion. Communicating with such a large variety of people helps you to become an expert international traveler able to handle any situation you might encounter. On top of all of this you also earn 12 Georgia Tech credit hours by taking various courses in history, music, and typical Tech subjects.

I was fortunate enough to attend one of the Eurocup soccer games while in Europe. I went to a bar called U Pinkasu, the first bar to ever serve the famous beer Pilsner Urquell, to watch the

Czech Republic versus Turkey game. I also watched a part of the same game in the open town square where huge TV screens were set up and excited townspeople were cheering for their team. I will never be able to get that amazing image out of my head. After the game, one of the people in my group came up with a crazy idea to climb up the hill to the Prague castle. Even tiredness could not overcome our determination and, after an hour of climbing, we were at our destination. To our surprise the whole town was lighted up, giving us a sensation of the classic 18th century. The old royal palace was looking down upon us while we sat down and gazed at the sky. After an extremely fulfilling day, we headed back to the hotel and somehow managed to wake up for our early morning class on time. Best of all this was no one-time trip, this was our typical nightly experience.

The excitement you have watching soccer games amongst locals in a historical town square or going to a hundred year old bar or walking along the thousand year old castle is indescribable. My study abroad trip is one experience I will never forget. Its lasting impression on me will affect me forever. The Oxford study abroad is a must for every Tech student.

Co-op: Diving Into the Real World

By Stephen Hilber

Let's say you're in the fortunate position of being attracted to two people who feel the same way about you. Both of these people are fun, attractive, and sweet—everything you think you're looking for right now. However, while the first person is available to date for the next few years, the second person will only be around for one summer before he or she leaves the country, with no guarantee that he or she is coming back. Which person would you rather begin a relationship with?

While it might sound crazy, this is a fairly accurate analogy for the cooperative work plan (or "co-op"): companies are more likely to invest in you if they know you're going to be around for a while. Unlike a traditional internship, a co-op lasts three, four, or even five or more semesters. You alternate between work and school semesters, so you're able to apply the skills you learn in school to your job and vice versa. This often means that you won't be able to graduate in four years, although it's certainly possible (I'm on track to do so myself with four work semesters under my belt). However, in a good co-op you'll be taking on more and more responsibility with each semester, so by the time

you start your fourth work term you've got a lot of the same responsibilities as full-time employees.

I worked as a co-op for the Secure Information Systems group inside the Signature Technology Lab at Georgia Tech Research Institute (say that ten times fast), and we were given plenty of responsibility. Students in my group started off their first term on bug fixes, tutorial modules, and simple implementation add-ons, just like internships at most other companies. However, as we gained experience with the technologies we used and the software we maintained, we kept getting more and more responsibilities. Second semester students drove significant development on their own, third semester students became the mentors of the first-term students, and the fourth semester students were frequently the experts on certain technologies across the entire Secure Information Systems group. We were getting real and meaningful work done in a real work environment, giving us a much better representation of what a career at GTRI (and software engineering in general) would be like in a way that few internships can capture. Combine good work with a rewarding break from classes and, to top it all off, a paycheck, and you have everything

you'd ever want in a job as a student.

It's important to find a job that you enjoy, and the research you do into potential co-ops will make a huge difference in the quality of the jobs that are available to you. Talk to previous co-op students and find out who enjoyed their jobs and who didn't, and what made the difference for them. The Division of Professional Practice has a massive amount of data for students to peruse, so make use of it (you've already paid for it via tuition). Don't stress out too much, though—a co-op doesn't bind you to a company for all eternity. The best part of a co-op is that it lets you experience what life in the workforce is like; if you can't stand it after two semesters, you can always quit. The experience you have will still be there, and you'll be a stronger candidate for future job opportunities.

Like everything else in life, the co-op experience is what you make of it. Just be sure not to ignore it in favor of one-shot internships, or you may find that you've cheated yourself out of a wonderful and rewarding experience.



Late Registration

For those of you who still need courses, late registration (Phase II) runs

December 22nd to January 9th

If there is a course you need that is full, request an overload. We will do our best to accommodate your legitimate requests, but the availability of seats will continue to be a limiting factor, and we can make no guarantees. We will begin taking action on these requests on January 6th and will continue where seats become available until the end of Phase II.

Wanted: First Chief Technology Officer for America

By Eric Sembrat

In one of the many changes implemented by the incoming administration of President-Elect Barack Obama, the upcoming administration has posted a new job posting: first Chief Technology Officer (CTO) of the United States. According to Obama's campaign site, the CTO will "ensure that our government and all its agencies have the right infrastructure, policies, and services for the 21st Century". The new Cabinet member will need to form and mold technological policy that will guide leg-

islation in the United States, and their interpretation of law and creation of public policy will both form and guide the new administration's stances on all technology-related issues. In particular, the CTO will need to increase transparency and technical interoperability in the federal government and ensure that the technologies used are up-to-date and used most efficiently. For important issues such as network neutrality and copyright law, the CTO will set the agenda and influence the policies that will be implemented.

Elections Continued

major news-networks. One prime example of this is the 'Celebrity'-series web-ads by the McCain campaign.

The original 'Celebrity' ad was a television-ad released in late August, which compared Obama's celebrity status with Britney Spears and Paris Hilton. Following the buzz on both the major networks and both liberal and conservative blogs over the advertisement, the McCain camp pushed the original 'Celebrity' ad to YouTube and began to produce accompanying-ads to further press the topic. These secondary-ads, being low-budget and hastily made, appeared only on YouTube and typically focused on interviews with 'average Americans' over a particular issue. In this case, these secondary web-ads focused on Americans discussing and critiquing Obama's celebrity image. This continued throughout the campaign, with both campaigns responding to television and radio ads through quickly-produced web-ads that would be released exclusively on YouTube and spread through viral advertisement.

YouTube wasn't the only venue for the campaigns to expand and experiment with their advertising. The Obama campaign, awash with political contributions during the general election, focused part of its ad campaign on an untouched battleground for campaigns: advertising in video games. Noting the youth-vote as a factor in the upcoming election, the Obama campaign researched and purchased advertisements on Electronic Arts (EA) XBOX 360 games. Starting in October, gamers noticed that billboards and banners advertising early-voting had begun to sprout in online games of Burnout Paradise, Skate, Madden NFL 09, and 15 other games. The cost of such an endeavor? A mere \$44,000 to Massive Incorporated (Microsoft's in-game ad-firm), which bought ad-space from the beginning of October straight until November 3 in ten crucial 'swing' states. The price tag

seems paltry compared to the \$2 million it cost the Obama campaign to air a thirty-minute infomercial on three of the local networks. The month-long online-ad campaign focused its efforts on the traditional male 18-34 age group who most commonly play video games online and focused on voter registration and early voting.

If the 2008 election brought anything new to the campaign world, it brought the emergence of the web as a primary battleground to accompany television and radio ads. Because of the wide scope of the Internet, campaigns

can target specific groups (as with the XBOX 360 advertisements) or target Americans as a whole (as with the 'Celebrity' YouTube videos) for a drastically reduced price in comparison with more traditional advertising methods. Furthermore, the Internet finally gives campaigns the ability to target to specific groups-from XBOX 360 gamers to females who support Hillary Clinton-with unprecedented precision. As technology continues to advance, it's impossible to predict how future campaigns will utilize the ever-increasing scope of the World Wide Web.



France (GTL) Facts For Undergrads

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Nerd it out with ThinkGeek.com

By Chris Russell

Does a flash drive wristwatch, an LED umbrella, or a USB-powered Nerf missile launcher sound like a good purchase to you? If so, ThinkGeek.com might be worth a look. If you don't consider yourself a nerd, don't let the name discourage you. Think Geek has a selection of toys, gadgets, electronics, and clothing that would appeal to pretty much every demographic.

Think Geek's selection of gadgetry is undeniably impressive. Pages upon pages of—for lack of a better word—toys are all conglomerated into this one website. Whether you're looking for something practical (like a keyboard that rolls up for storage), something pointless (like their selection of stuffed microbes), or just something really and

truly weird (like a USB incense burner), odds are good it can be found on Think Geek.

From my experience, Think Geek's selection of goods breaks down into three major groups: the amusing, the useful, and the "Good Lord, why would anyone buy that?" The website's anarchic sense of humor presents itself with items like the dueling RC pirate/ninja combo, a set of speakers shaped like miniature R2-D2's, and the good luck charm known as, and I quote, the "Japanese Lucky Golden Poo." Items such as laser-projection virtual keyboards, an eight-gigabyte flash drive smaller than a quarter, and a USB-compatible microscope are all—aside from being really cool ideas—useful as well. However, as awesome as it would be to have a keyboard with over 100 customizable

OLED keys, I don't think too many people are going to be willing to pay the \$1,600 price-tag that comes attached to it.

Gadgets aren't the only thing Think Geek stocks. They also have something else Tech students have a natural affinity for: snarky T-shirts. Standards such as the typical t-shirt with an internet acronym, an obscure video game reference, or the first couple hundred digits of a mathematical constant emblazoned across the chest of course grace their site, but a few are mind-boggling even by the nerdiest standards (such as a shirt the phrase "You are dumb" written in binary down the front). Other featured shirts include one with a Wi-Fi detector embedded in the chest, one with a set of drums that make noises when touched, and one with a caffeine molecule proudly diagramed across the back.

Perhaps the most impressive section of Think Geek's website is the section devoted to the substance that keeps most Tech students on their feet: caffeine. Of course there is the standard selection of energy drinks that have come to be associated with the gaming and computing cultures, but there are also a few more...creative uses of caffeine. Chocolate-covered espresso beans? No problem. Caffeine infused candy? Interesting concept, but still perfectly normal. When things like caffeinated soap, sunflower seeds, and lip balm, start popping up, though, the site's inventory really starts to get interesting.

Overall, the site is easily navigable, customer support and shipping all work nicely, and the selection of time-wasters, toys, and electronics are always fun to scroll through. I would recommend that anyone with an interest in electronics, internet culture, gaming, and science in general take a spin through the site, just to see if anything in particular catches their eye.

Study in Barcelona!

Info Sessions for Summer 09

Nov** 24 6pm	Jan* 15 11am	Feb* 5 5pm
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Pizza and Soft Drinks!

Piracy Today or: How I Learned to Stop Worrying and Love the Torrent

By Christopher Stuckey

Piracy is a destructive influence, or so many executives of monolithic media corporations say. In 2005, I took part in a panel hosted by MTV at the National Show, a cable TV expo, where I got the chance to talk to the executives of various television interest groups about piracy and TV watching habits. The panel essentially consisted of 6 other students and myself. Now, this was

student to use the Ruckus network to download music.

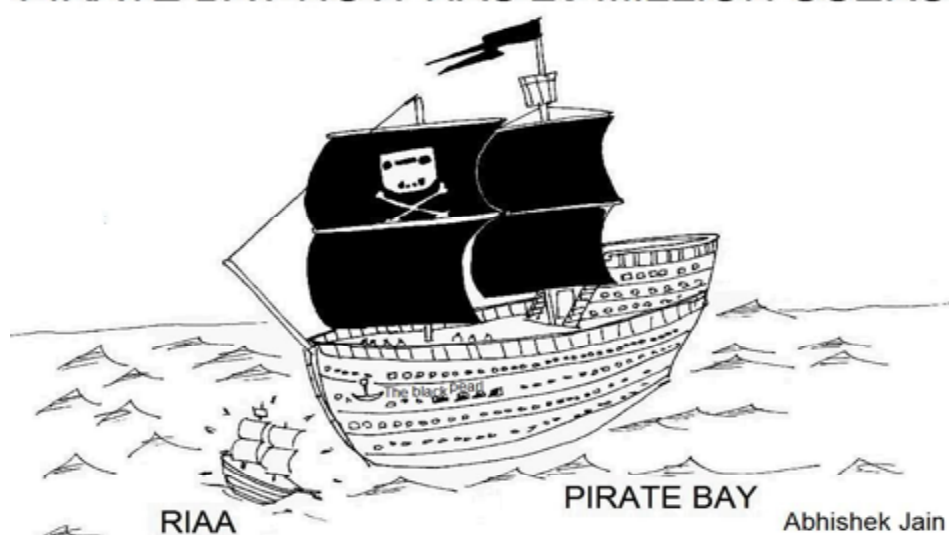
Not only does Tech incur that cost, but also the cost of the staff necessary to process the Digital Millennium Copyright Takedown Notices. It is estimated in an official report by The Campus Computing Project that major universities are paying for up to 1000 hours of employee time to fight and deal with piracy. Companies like BayTSP simply

techniques to obtain pirated materials without being caught.

Little has been done to provide legal alternatives to piracy, but there have been some steps in the right direction. Ultimately, in order to keep pace in today's world, companies should construct a new means to distribute, such as Hulu. Hulu.com, for example, is a site where movies and television shows can be watched legally for free. Hulu is a great example of a group inside of the MPAA, in this case NBC Universal, which is playing by a new set of rules. What about the rest of the members of the MPAA?

Piracy will undoubtedly be a force for change, but it's up to the companies, not consumers, to decide whether these changes are for the better or worse. One thing is for certain: if things remain the way they are, it will become increasingly difficult for the companies to fight off piracy.

PIRATE BAY NOW HAS 20 MILLION USERS



three years ago, and so far they haven't done a whole lot to stop piracy. This really begs the question why it is taking them so long?

Whether or not you actually engage in illegal or gray-area downloading, often there is an automatic assumption that, as a college student, you do. As such, statistics of student piracy are often exaggerated when reported to Congress, and this has recently lead to the passage of the Higher Education Act's new provisions requiring colleges to further address the issues related to file sharing over the school network. Fortunately for them, Tech has already addressed the main additions of the HEA, which in part requires the college to notify students that piracy can lead to legal prosecution, and to offer alternatives to illegal downloading. In this case, Georgia Tech is paying for the rights of every

monitor IP traffic on select torrents, and have a script running to send out notices. Proof that you actually did download the item in question isn't even necessary to bring down a world of hurt to your doorstep. And, in the rare chance sufficient evidence does turn up, you will actually be brought up on charges much more severe than if you physically stole the item from a store.

This process is an obvious attempt to scare people away from pirating, because piracy is being viewed as destructive, instead of constructive. And it hasn't really worked. Today's pirate plays it smart. By simply avoiding sites like thepiratebay, you greatly reduce chance of being caught by watchdog companies like BayTSP. Instead pirates use private trackers, darknets, sneaker-nets, private FTPs, direct download sites, TOR bouncing, Usenets, and dozens of other

Internship Continued

drive security tool that secured hard drives to prevent read and writes to the drive in order to protect user data. Again, I had a tremendous amount of fun, and it was really cool to have ownership of such a significant project. However, I didn't get everything right the first time. I was running the tool on a couple hundred machines in the Atlanta data center and accidentally rebooted them while the test of was running, effectively "bricking" the machines so they could not be booted. I was able to fix them, but I had a realization right after I restarted the machines and had to place a call to a data center technician and apologize profusely, as he would have to individually restart these several hundred machines by hand (a process which would take several hours, at the least). In the end however, I had two fantastic experiences and would definitely encourage all students to try to get internships of their own.

Undergraduate Student Spotlight: Megan Elmore

By Victoria Au

Megan Elmore is a fourth year Computer Science major from Atlanta, GA. You may have seen her around in the CC as she is involved in CC ambassadors, Upsilon Pi Epsilon and Women@CC and has served as a CS2110 TA for many semesters. Elmore is also a dedicated researcher and has recently won an award at the 2008 UROC competition. We talked to her about her aspirations and inspirations as well as advice for current students.

How long have you been interested in Computer Science?

I think I was first interested in Computer Science at the end of middle school. I played a lot of video games as a kid and I thought it would be cool if I could write my own video games. I tried to teach myself and being one's own teacher usually does not end well, so I took some courses in high school and it opened my eyes that there's more out there to Computer Science than just video games. The video games brought me; the rest of the field was what kept me.

I know you are an avid researcher.



Megan Elmore

What sort of topics are you currently working on?

So currently here at Tech, I'm working in the networking department on a project called "Pathsplicing" with Nick Feamster and Murtaza Motiwala. The gist of that is that it's a multipath finding scheme. In a router, they only know one way to get from Computer X to Computer Y. So every time you want to get from one specific computer to another, it's going to give you the same one. That's pretty good when the

internet is available but when there's a high amount of traffic on one link, you won't be able to talk as quickly or possibly. So what we're trying to do instead is to learn more paths so that there are multiple ways to get somewhere. Then at any hop in the network, you can change paths. So the gist of that is it's like knowing how to drive around Atlanta. There's not any one way; there are multiple ways.

As a female student in CS, do you have any advice to give?

My advice would be to take any opportunity that's presented to you. The problem for women in the field at the moment is that we don't have many role models so it may sometimes seem that there might not be any opportunities. If you want to get involved, try to take academic leaps and you'll hit upon what's interesting to you.

What do you plan to do in the future?

I'm currently applying to graduate school. I definitely want to pursue a PhD and become an academic researcher or a researcher in the industry.

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Graduate Student Spotlight: Tammy Clegg

By: Vinutha Prabhakar

Tammy Clegg is a 6th year Ph.D student studying Computer Science. She developed Kitchen Science Investigators, an after school program in which elementary and middle school students learn Science through the combination of cooking and software, along with Professor Janet Kolodner, which was shown on CNN a year ago [<http://www.cc.gatech.edu/news/multimedia/video/kitchen-science-investigators>].

She has published for the International Conference for Learning Studies and for a journal about KSI. She is currently working on getting a paper published for IDC (Interactive Design for Children). Clegg was awarded the Outstanding Undergraduate TA award during the CC 17th Annual Award Ceremony.

How did you get into CS?

I went to camp during my Middle School summer vacation, and took a computer science course and programmed with my friends. Programming is fun! I love it. When I started college, I majored in applied Math, because I loved Math. But, after taking an Intro to CS class, I switched to CS. I realized at that time that I could do more with a CS degree rather than a math degree and that helped me change my mind as well.

Did you do research as an undergrad?

Yes, I did. I did research at UC Berkeley and did research in the area of educational technology at North Carolina State University.

How did you get into Educational Technology and into KSI?

The way I first got into this was through the Educational Technology class (the graduate one) and I fell in love with



Tammy Clegg

this class. I really got interested in Educational Technology and decided to go into the field. Janet[her advisor] and I came up with KSI because we both were passionate about cooking and helping kids. I can relate to that. I fell in love.. well not love exactly. I got really interested in Educational technology after taking the class with Professor Kolodner.

We want to help kids learn about scientific research and help them see how it is relevant in everyday life. When you work with children, they get so excited about cooking. It's wonderful to experience that and to know that you can make a difference to one.

Since you are graduating this spring, what do you plan on doing after graduation?

I will be looking for faculty positions, develop programs for people in community, recognize talents and abilities and build on it.

What do you want to teach?

Basically anything in CS. Maybe, an In-

tro to CS class or an educational technology class.

Is there any advice you would like to give to students?

Balance work and take time to enjoy life. Also, I encourage them to do undergrad research.

Are there people in your life who have inspired you to be where you are right now?

Yes, my grandpa. He always emphasized the importance of education and told us to go as far as you can. And the people in my community helped me explore various careers. For example, my neighbor used to tutor my brother and I in math. At that time, he was a graduate student at North Carolina State University but he went to become a faculty there. He exposed me to various careers, to see what I would be interested in. In highschool, I volunteered in a hospital to experience different careers and to find out what career to go into. And, of course my mom and dad.

\$\$\$ BUYBACK \$\$\$

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Spook It Out With Spooktacular

By Chastity Holiday

On October 30th, the Women@CC hosted their annual Fall Festival event, Spooktacular! Co-hosted by several CC student organizations including UCouncil, ESP, SAB@CC and M@CC and sponsored by Yahoo!, the event was a great success with over a hundred people in attendance. CS and CM students flocked to the College of Computing Building to take part in the festivities. The party ranged from 5pm until 8 at night and there was lots of food including pizza, chips with dip, smores, hot chocolate and caramel apples.

There were plenty of awesome and exciting events. A live game of Pacman was happening in front of Klaus with people running around dressed as ghosts and collecting colored orbs. Inside the CCB, Rock Band raged on for hours. The winners of the pumpkin carving contest and raffle along with the general and computer themed costume contests were awarded prizes, such as an eight and a half pound bag of candy. A



Left to Right: Chastity Holiday, Beth Collums, Candis Pham and Vinutha Prabhakar

few of the more brave men participated in the all-you-can-eat event to see who could eat a twinkie peppered with pieces of candy corn the quickest; some of the contestants choosing to give up at the start.

Continued on Pg. 15; Spooktacular

Little Known M@CC F@CT: First African-American Ph.D Computer Scientist

By Corey Steward

In 1969, Clarence Ellis became the first African-American to receive a Ph.D. in computer science. After achieving this historic feat, he went on to have a distinguished career in research and development for companies such as IBM and Xerox and as a professor at various universities such as Stanford University, MIT, and the University of Colorado at Boulder. Ellis has led a remarkable life, but his road to success was not without hardships.

Ellis was born in 1943 in Chicago, Illinois. He was raised in a violent neighborhood by a single mother who was struggling to raise five children. In an



Clarence Ellis

Scare Your Socks Off

By Emily Cribb

For Spookacular, ESP offered a nerdy-but spooky-surprise; a room filled with video games from the horror genre. Horror games are well known for having engaging plots and unique game mechanics that make the playing experience enough to make you afraid of the dark. Some horror games - such as Clock Tower for the Super Nintendo - have you constantly running from an enemy, sometimes scrambling to find hiding places or last-ditch attempts to stun your enemy in a desperate attempt to not get caught, all while traversing an intricate dungeon. Many horror games work to mess with your psyche; in Eternal Darkness for the Gamecube, coming into contact without enemies, without defeating them can cause your character to go through "sanity effects." These include having limbs sliding off, exploding while trying to cast a "magick" spell, or even getting the Blue Screen of Death. After each effect the screen flashes white, your character screams, and everything goes back to normal (except for your newly soiled pants). Horror games can also rely on the tactic of pure surprise; in Dead Space, enemies can suddenly jump on your character from out of your field of vision, giving you quite a shock!

area plagued by gang activity, Ellis kept to himself, living a reserved childhood. At age 15, he took a job at an insurance company to help support his family financially. He was assigned the task of preventing break-ins and guarding the company's computer during the night shift but was not allowed to touch the computer because of his race, but was given access to the computer's operating manuals. By reading these manuals during his shift, Ellis began building what would later become an extensive knowledge of computing. His first real experience with a computer came when a shortage of punch cards used to feed

Continued on Pg. 14; Ellis

Your Questions Answered

By Vinutha Prabhakar

UCouncil had their very first Students' Town Hall on Oct 21. At the event students were able to express their concerns about the College of Computing open heartedly, without the presence of faculty or staff.

Students have expressed concern about the schedule conflicts arising from the many CS classes scheduled for the same TR 12-1:30PM time slot. The advising staff (Cathy and Kathy), the Assistant Dean of Student Affairs (Tom Pilsch), and the Associate Dean of Academic Affairs (Charles Isbell) are hard at work coming up with a solution for future semesters.

Turn to pg. 15 for answers to additional Town Hall Questions

If you have any questions or comments about the College of Computing, feel free to email our president: vinutha@gatech.edu



Chris Klaus at ACM's Tech Talks at Spring '08. ACM plans to host more Tech Talks in Spring.



The Many Sides of Anime Fans

By Chris Stuckey

What makes an Anime O-Tekku member tick? There is the anime of course, but there is more to it than that. We decided to interview two of our members during our weekly IRC chat on Monday from 8:30 till 10 PM, officer Nick interviewed Jianzhuo "Eric" Wu, a first year CM student, and John Self, a third year BME student.

Nick: So what first interested you in anime?

Eric: Well, what first interested me in anime was the style and the quality of artwork.

Nick: I suppose this somehow got you to find out about Anime O-Tekku?

Eric: I knew that GT had to have an anime club, so during FASET, I looked for it during the club fair.

Nick: Makes sense. So what do you like about the club so far?

Eric: Well, mainly the anime, but I like how well it is organized.

Nick: Well it's great that there are people who enjoy watching with you. So for a non-anime person, how might you recommend they get started?

Eric: Depends on the genre you like. I'd suggest "Uta wareru mono" as a great adventure/ fantasy anime. "Higurashi no Naku Koro ni" as a great murder mystery/ psychological thriller, and "ef-a tale of memories" as a great romance anime.

Nick: I know you are a third year, but have you been with the club for three years?

John: Yes, this is my third year with the club, and I heard about it from a friend who said I might be interested, so I went to a meeting and had a great time.

Nick: What leads to the great time during our meetings?

John: The people certainly, because they are laid back and fun to talk to. It is a big deal within the club, since there is always time for homework later. It is also important to relax and have fun from time to time.

We've learned a little more about our members, and we hope you did too. We would also like to thank both Eric and John for being willing participants. For the full interview check us out on our website: www.cyberbuzz.gatech.edu/anime

Please join us for our final meetings of the semester, and check back on our website for our Spring semester schedule:

8th Meeting: November 22nd, 2008 Noon in Klaus 1443

Final Showing: December 3rd, 2008 Noon in Klaus 1456

Final Meeting: December 6th, 2008 Noon in Klaus 1443

You Shot Me All Night Long!

By Chris Sladky

great event!

On November 8, SIGgame (a Special Interest Group of GT-ACM) had its biannual gaming tournament, GT GameFest. More than 400 people came out to enjoy both the tournaments and casual play, and more than \$2000 in prizes were distributed! This is a great CC tradition, and we thank everyone for helping make this fall's GameFest a success. A special shout-out to Anime O-Tekku, who provided content for people to watch and relax when taking a break from games, and RHA & SGA, who helped with building fees, logistics, and advertising. Stay tuned for opportunities to get involved for the spring semester and help us make another

Looking forward to the spring semester, we're working hard to bring a number of exciting events to you. Of course, we're constantly expanding our Tech Talks program, and we hope to bring in more companies. In addition, we'll be expanding the program to include talks from researchers at Tech, so you can keep up with exciting developments as well as see potential opportunities. Our social side will also be expanding, so keep on the lookout for events like movie nights and cookouts. We just finished our first movie night, in collaboration with IEEE, and it was a great chance to hang out and meet some neat people.



Attendance was high at GT GameFest

GTACM is always ready to help people make Special Interest Groups, so if you're passionate about a niche in computing, chances are there are others who share your passion, and we'd love to help you create a group around that.

Back by popular request is Hack Week! We had a great year last year, easily beating the competition, but in the interim, other schools have topped our performance last year – so let's show them just how ready we are to compete and take back our position at the top!

Finally, our biggest new project in the spring will be our options classes. CS is such a widespread and diverse field that we can't hope to cover all of the languages, frameworks, and platforms in our curriculum. However, employers value these skills, and many topics are just plain interesting! Suggested topics have included Ruby, JQuery, Apache, J2ME and others. We're currently looking for topics and teachers, so if you know about something and would like to share or have ideas for what you'd like to see, let us know!



Tech Students take a break from homeworks and projects to frag all night long

LOCKHEED MARTIN



Learn From the Game Industry Pros @ GDX

By Joseph Casey Rogers

For anyone currently struggling with an economics course, GDX has nothing to do with GDP. GDX is the Game Developer Exchange put on by the Savannah College of Art and Design, held at their campus here in Atlanta. Anyone remotely interested in videogames or the videogame industry can find something here to get excited about. The convention revolved around seminars given by professionals from a multitude of backgrounds. Topics of discussion ranged from graphic design to cell phone gaming. Representatives came from companies such as Blizzard, Hewlett-Packard, Adobe, Gametap, and more. Each talked about advances in the gaming industry, with an emphasis on their own areas of expertise.

The fun didn't end here; between seminars there were plenty of activities and events to keep you busy. A discussion panel between professional game developers talked about exactly what it means to be an indie game developer. Sample games from individual game developers were set up around the facility for casual game play, and a table with four computers allowed free and unlimited Gametap play. To top off the experience, anyone attending was given a starter kit for Sananu, a table top

game played with dice. Sananu was a way to meet and mingle with other attendees and to connect with our table top gaming roots. Inventor Demetrius Pennebaker himself was at GDX and more than happy to meet and discuss the game with anyone interested. The convention taught me a lot about the gaming industry but, more importantly, I had a blast and felt like I was swimming in a fountain of inspiration and dreams.



A member of the Women @ CC chalking for Spooktacular

Ellis Continued

data into the computer presented a company-wide dilemma; to everyone's surprise, Ellis was the only one who could reconfigure the computer to reuse the old punch cards.

During his high school career, Ellis developed an interest in academia by attending summer programs at local universities. As his aspirations turned toward college, he faced the difficulty of funding a higher education. Fortunately, Ellis applied for and received a scholarship at Beloit College in Wisconsin.

Upon entering the university, Ellis learned that he was the only African-American student attending Beloit. He became discouraged, feeling that his peers were more informed or better educated. He refused to give up because he could not bear to disappoint his mother, who constantly encouraged him. While others went home for summer and winter breaks, Ellis stayed on campus and continued to study.

During Ellis' third year at Beloit, a computer was donated to the college and Ellis, along with a chemistry professor, was assigned the task of setting it up and starting the college's computer lab. The process of setting up the computer rekindled his passion for academia and computers. Although Ellis graduated from Beloit in 1964 with degrees in both math and physics, he still wanted to pursue the field of computer science. He went on to attend graduate school at the University of Illinois where he worked on one of the world's first supercomputers, the ILLIAC IV. In 1969, Clarence Ellis became the first African-American to earn a Ph.D. in computer science.

After receiving his Ph.D., Ellis continued his work on supercomputers at AT&T Bell Laboratories. He later worked as a research scientist for Xerox in Palo Alto, California. While at Xerox, he helped create the concept of clicking on a graphic to start a computer program or issue a command instead of typing in lines of code. This click-and-point concept became a defining feature in many of the operating systems we work with today. Ellis continued his work with Computer Technology Corporation, Los Alamos Scientific Labs, and other technology labs as well as teaching courses at MIT, Stanford, and international universities.



No More Coffee

By Vinutha Prabhakar

Due to the budget cuts affecting the entire Tech campus, the coffee service in Klaus will be discontinued. While many students working late at night appreciated this service, the College of Computing is taking every budget saving measure possible to avoid laying off staff. As an alternative, a third-party vendor operating a cafe in Klaus was considered, but this was ultimately rejected by campus officials. If you would like to help UCouncil find ways to bring late-night coffee back please contact me at vinutha@gatech.edu



ESP's PAC MAN at Spooktacular

Spooktacular Continued

Towards the end of the night everyone still in attendance was given a Yahoo merchandise. Spooktacular was also staffed by Beth Collums and Cedric Stallworth who ran the smores stand.

Even Dean Foley made an appearance and helped himself to a chocolate apple. Though the event itself started later than planned, it was a blast for everyone. The later it got the more people danced until there were entire groups breaking down to "Jump on It" and "American Boy." Candis Pham, President of W@CC said, "At the end of the day it wasn't the number of people but the quality. Thank you to everyone that came and partied with us. We hope to see you again for our next CC wide signature event, CoCaesar's Palace, coming next March!"



Tower of Pizza consumed at GT GameFest. Face it, college kids eat a lot of Pizza.

Recycle Bins in CCB

By Vinutha Prabhakar

UCouncil recently took into consideration about getting recycle bins for the CCB commons. Many students feel it is frustrating to see fellow classmates throw plastic and waste paper in regular trash cans when it can be used to improve the environment. I worked with Jack Ramsey, the CC Facilities Manager

Board Game Development Challenge

By Stephen Hilber

ESP club members are working hard to build the best board games they can for the last meeting of the semester (Dec. 4). We encourage everyone with some ideas to share - whether you're a member or not - to swing by to our last meeting. We'll have tons of custom-made games for you to play and evaluate, great food to eat while you play games, and prizes for the games people feel are the most fun. So swing by ESP, have a blast, and end the semester right!

to get at least two recycle bins for CCB. However, the campus recycling service is no longer expanding their services to other departments as a measure of budget saving. We even took into consideration of the fact that CC could pay for half the cost, but it requires more funds to get administration to maintain these bins. Until the state budget is back to normal, we might not be able to have recycle bins in the CC Commons.



The Evolution of the FIREwall

By Mansi Sharma

The FIREwall is a month old now and we are happy to say that it's grown in every aspect. We've now gone from black and white to color, and we're now printing in-house through the CC Office of Communication. The FIREwall team has increased significantly in number with a plethora of contributing writers and several new copy and layout editors. We appreciate the help and advice from Matt Shaffer, Mike Terrazas and Beth Collums with regards to layout and content.

We've incorporated a lot of changes and additions that have come straight from

you through emails and paper and online surveys. I'd like to personally thank every one who took time to send us your opinions of the newspaper. The winner of the survey raffle for last month is Nitya Malhotra. We hope you enjoy your Starbucks giftcard especially with finals right around the corner!

The FIREwall has also created a buzz outside of the CC, as it was showcased in the Technique that came out on October 31st. I would like to take thank Chris Russell along with the rest of the editorial board of the Technique for all their encouragement as we proceed with our own paper.

We are well on our way to making The FIREwall a stable and chartered organization. We already have a team of dedicated students working for the FIREwall who meet every Tuesday at 8pm in room 104B of the College of Computing, but we are still open to people who want to contribute. All you need to do is send an email to ccfirewall@gmail.com about your interest and we'll take care of the rest.

Next January, The FIREwall will launch its brand new website where you can find previous issues of the FIREwall along with a lot of other cool things. Since this is the last issue of the FIREwall for this semester, we would like to wish you all the best of luck for finals week. Have a wonderful vacation.



Dean Jim Foley standing next to his 8 foot tall poster after receiving his copy of the FIREwall

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