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Banks of the Boneyard

Association for Computing Machinery at the University of Illinois at Urbana-Champaign

http://www.acm.uiuc.edu/

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Events

ACM Reflections|Projections Conference 2008

Friday Oct. 3 - Saturday Oct. 5 2008
Chair: Kim Vlcek

Conference, as always, started with the Job Fair. During the fall semester, many people are shopping for jobs, and the ACM likes to give the people what they want. ACM flooded the hallways of Siebel Center with with a sample of the best and brightest CS, IT, and financial companies who offered a variety of jobs and internships for every type of Engineering student.

Conference proper kicked off with nerd webblogger Rands describing the finer points of Nerd Life. "Nerds," said Rands, "Focus on the system." Nerds love a puzzle, and will focus all of their passion on understanding a particular system, be it a Rubiks cube, a computer, or a girlfriend. But nerds like their systems to be predictable. "Because there's a lack of predictability in human beings," Rands explains, " nerds just kind of say, hey, I understand my mac but I don't understand you, so...thanks, but I'm going to go code." Thus, nerds will go off into a place where there are no irritating, messy people, and Rands calls this The Cave. "The cave is the structure or the system that we put around ourselves to get stuff done." Rands said, going on to describing his own personal Cave. "Look at those blood-red walls, it's like a warm blanket... People just come in [and] they're like ,wow, that's really intense and gee, that's kind of ...ominous, and I'm like yeah, you should leave!"

And we did leave- eventually, at the end of a hilarious and very informative talk. It gave attendees something to chew on over a delicious Hickory River dinner.

Well fed and ready to hear more pearls of wisdom, conference attendees trooped off hear Larry Wall, designer or Perl, show off Perl 6. Through a series of bad puns, humorous observations, and biological metaphors, he described the design process of Perl. "My favorite biological metaphor," Larry commented, "is probably the Harvard Law...The Harvard Law states that under controlled conditions of food, water, temperature, humidity...and so on, the organism will do whatever it damned well pleases." Which described the design process of Perl. "We've had five successful versions [of perl], five successful organisms," said Larry, and he proceeded to describe all of the improvements made to his newest organism: Perl 6.

The evening ended on a high note, when the frantically programming Mechmaina staff put the finishing

touches on the server and kicked off the Mechmania Opening Ceremony: Blue Blood and Mutiny: A game of asteroids and stock market pirates. Teams received the game specs and headed downstairs to spend a night eating oatmeal-cream pies, drinking soda, and immersing themselves in programming AIs. A sleepless night of virtual piracy lay ahead.

Such was not the case for conference staff. With no major problems or fires to put out, staff headed out early to snatch a few precious hours of sleep.

Conference rebooted in the morning with breakfast and talks at 10:00. Of course every college student was a bit spacey after waking up at such an unhallowed hour on a Saturday. An hour later, they were still spaced out, but only because Matt Dabrowski of the company SpaceX described how to build your own cheap and affordable space program, rockets, satellites and all. The entire talk was precisely calculated to cause amazement and raging jealousy among all of the listeners, since Matt works for a company that owns its own tropical island uses it as a base to launch rockets into orbit. They plan to build even bigger rockets and use them to launch inflatable space stations into space. How cool is that?

The day continued to produce wonders. Scott Draves, creator of the 60,000 computer strong networked screen saver Electric Sheep, showed an hour of the most breathtaking fractal images in existence, and described the ideas and algorithms behind his procedural art. Prof. Al Aho boggled all with a series of mind-bending ideas on how to build Quantum Compilers. Prof. William Townsend's robotic arms and and hands handily impressed audiences with their dexterity. Don Schmidt from Dreamworks amazed everyone with an inside view of the design process of the movies Madagascar: Escape 2 Africa and Shrek Goes Forth. A slight explosion (a spark is an explosion, right?) blew out the circuit breakers in 1404, annihilating the sound system, but Speaker Dave Thomas carried on brilliantly.

After the speeches were over, staff retired to the annual Conference Party. It was a smashing success. And deep into the night, Mechmania competitors toiled on, determined to capture the wealth of outer space for themselves.

The next morning dawned head-poundingly early, and Conference staff woke up, dusted off their best "I've only had two hours of sleep" smiles, and carried on thought the last three talks. Brian Runk of Morgan Stanley inaugurated the third day of conference with an introduction to the Q programming language, and U of I's very own Prof. Sam King capped it off with a discussion of secure browsing on the Internet. Finally, Mechmania programmers dragged themselves out of the basement, put on their best "Dear sweet merciful heaven I haven't slept since Friday" smiles, and brought their AIs to do battle. The best pirate won, and everyone, Conference Staff, Mechmania staff, speakers, and volunteers, dragged themselves home to bed or collapsed on the nearest horizontal surface. In other words, it was the picture of a successful conference!

Note from Conference Staff: Thank you everyone: Staff, volunteers, Speakers, and attendees, who helped make this an amazing event.

Conference Videos can be found here

Cleaning of the Augian Stables: Also known as the ACM office.

Hosted by Top4 Saturday, Oct. 25 2008.

Due to concerns that the ACM front office was too loud and inappropriately social, top4, aided by the exec board and members of ACM, decided to move social aspects of the ACM office to the second room and make the front office into a computer lab/study area. The change was made in a single day of frenzied activity.

Members of ACM descended like a hoard of determined, scrub brush-wielding Vikings upon the paper-and-toy-choked ACM office on Saturday. With the help of over 20 members, the ACM turned into something less like a teenager's room and more like an office. High points of the day included putting the pin-ball machine on roller skates to move it to the back room, finding out that the cabinets rivaled the power cable box for being "The weight of a thousand suns," and discovering, through the application of various unknown substances such as 'water' and '409,' that the color of various tables is not dark brown, but instead a light gray. The same could be said of the walls. Three cartloads, or over twenty bits of obsolescent computer equipment, were carted away by TSG.

On Monday, several ACM members walked into the office and became confused about which part of the building they were in. Although at first disoriented by the change, members agreed that deep-cleaning the office was an excellent idea, although the final result of the rearrangement is yet to be determined.

The Great Pumpkin Massacre

Saturday, Oct. 24, 2008
Sponsored by Caterpillar and run by Social Chair Ellen Cetera

The notorious Association for Computing Machinery, in an event hosted by ACM Social Chair Ellen Cetera and aided and abetted by Caterpillar, slaughtered, gutted, and carved ritual symbols on eight poor, defenseless pumpkins. A great outcry ensued as the Local League against the Misuse of Commas lodged a protest against the previous sentence, and Local Vegetarians for the Ethical Treatment of Squash spokesperson Lucinda Carrot reported that she was "completely appalled." She burst into tears when ACM member Ben Schaap stated his intention to roast the pumpkin seeds later that night. "They're delicious," said Ben. "You should try some."

Pumpkins were mutilated according to the taste of the so-called "carvers," with several mutilators punching holes in their pumpkins in the shape of symbols of their various local tribes. One pumpkin was defaced with the sigil of the secretive SIGMil, while another was carved with the more well-known tribal

emblem of the ACM. In a burst of school unity, another group courted their local overlord's favor by plastering their poor pumpkin with the popular logo of University of Illinois. SIGMil, through obscure means, obtained a series of blue LEDs and brilliantly lit their pumpkin from the inside. Another group, in an obscure attempt at art, replaced their pumpkin's guts with an inflated white hand, while another courted their sponsors by inflicting the shape of a carved caterpillar on the smallest and most defensless pumpkin of the lot. Another sought to turn their mutilation in some sort of celestial praise of their gods by marking it with images of planets.

The ultimate horror was yet to come. One team, commanded by a two leaders in the ACM organization, Kim Vlcek and Jim Wordelman, compounded cruelty with cruelty by alternately flaying and carving their pumpkin with a puzzling icon of a small round penguin. However, Caterpillar declared the worst abomination a winner: an all-girls team led by Madeline Woods flayed half of their pumpkin into the shape of a mechanical humanoid demi-god figure called Iron Man, and inserted into its tortured flesh two LEDs to represent glowing eyes.

When asked about her role in the event, ACM Secretary Tara Roys said, â€œIt was fun!â€ She is now being prosecuted by the Tribunal for Vegetable Rights.

There were no survivors of the massecre.

Hacking Politics: the Digital Age of Voting and Privacy

Hosted by SIGMil
Friday, Oct. 31, 2008. All Hallows Eve

HREF="http://www.acm.uiuc.edu/sigarch/">http://www.acm.uiuc.edu/sigarch/

Mike Perry, one of the Founding Fathers of SIGMil, and Matt Cheney, a former SIGMil member in good standing, stopped by on Halloween to give SIGMil (and anyone else who cared to listen) one heck of a scare. Their topic? The scariest topic of all: Politics.

Matt Cheney, a former campaign worker, kicked off the Hacking Politics conference with a rather cheerful view of the power of the Internet in politics. "If it wasn't for the Internet, Hilliary Clinton be elected in four days." He said, and went on to illustrate a major difference between the Clinton and Obama

campaigns. He pointed out that much of Clinton's funding came from one-time donations of the rich, while much of Obama's funding came from small, five to one-hundred dollar contributions from ordinary people. This gave Obama a funding advantage, because he could ask for money again, and as Cheney said, "You're not going to tap yourself out."

After fund raising, Cheney said that , "Having an integrated voter file where you can keep information about all your voters will win the election." He brought up two interesting facts: "The Republicans have had [integrated voter files] for thirty years...democrats did not have this until after the 2004 election." Such a database lists important information, such as voting history, party affiliation, home address, phone address, magazine subscriptions, and any other detail that will help a party determine what a person is interested in. This allows the party target very small communities- even individuals- in their advertising campaigns. Cheney related some of his own experience with this. "I was helping with an election on campus for a student trustee." He said. "...People who liked Sex in the City on Facebook got stuff about how this candidate wanted to give more condoms at McKinely. There was more positive response from that e-mail than any e-mail I'd ever sent in the election." Cheney wrapped up with the hope that the government would be able to use the same techniques that won the election to more effectively govern people.

Mike Perry had a more sobering view. He pointed out that the same targeted data Matt Cheney used to win elections can also be used as a weapon. "For example," Perry said, "In Canada, a reporter was investigating traffic light cameras, and...discovered that the incidents of traffic light accidents actually increased after the city instituted these traffic light cameras, but the rate of ticketing also increased...The reporter was going to break this story and the police got wind of it. And they did some investigation using databases that they had access to, determined his favorite bar... and they were going to set him up with a DUI. [It was] basically to take him down so that any sort of story he were to run would be discredited." Perry detailed other examples of government abuses and of situations ripe for abuse, such as a drug kingpin sitting on the board of directors of a company the FBI used to store make a database on drug crime, the fact that companies can make money selling personal information to other companies, and the infamous National Security Letters, which allow the government to request data and makes it illegal for a person to tell anyone, including a lawyer, that they have received such a letter. Perry said, "44,000 of these letters requested somewhere around several hundred thousand records...just during a four year study from 2003-2007... By the Department of Justice's own admission, there have been around 3,000 misuses." The talk wound up with various ways to defend personal privacy. These included jealously guarding one's social security number, and browsing the Internet through anonymous nodes.

On this cheerful note, the Conference dissolved as the thoroughly freaked-out audience departed for less horrifying Halloween parties.

A recording of Matt Cheney's talk can be found here
A recording of Mike Perry's talk can be found here

Student Lecture Series: The APL Programming Language

Talk Given by Mike Ilseman
Tuesday, Nov. 4, 2008

The inaugural talk of the Student Lecture Series kicked off with presentation of the APL Programming Language by Mike Ilseman. "Why APL or A+?" Mike asked, and proceeded to introduce the APL language. APL was originally a mathematical notation for expressing complex computations concisely, and later turned into a family of languages that facilitate different and novel approaches to solving problems. The language is known for it's power, expressibility, being dynamic, and for being very quick to develop, and as a result won its creator a Turing award.

Mike's talk can be accessed here

SIG Activities

Gamebuilders

Chair: Cameron Kikoen
Wednesday, 6:00PM 1104 Siebel Center

Gamebuilders has voted on member-submitted game ideas and picked about six. These projects each have a project lead and have recently chosen their target platform and tools. The primary project is a game developed in conjunction with SIGGRAPH called Zombie vs. Blind Guy. Gamebuilders is also cleaning up last year's games in order to submit them to the Independent Games Festival. For the first time in several years, Gamebuilders will start hosting small tutorials again. This is mostly to spur interest in cool and under-utilized technologies that are typically easy to use once learned. Gamebuilders is also offering full-fledged tutorials in Blender, a free 3D-modeling program.

LUG

Chair: Matt Sparks
Friday, 6:00PM 1104 SC

LUG has served as a forum for Linux-related discussions and support so far this semester. The group has begun a project to breathe life into a malfunctioning Xbox with the intention of installing Linux as a part of some yet-to-be-determined greater project. They currently have an x-box that runs linux. Some talks are currently being planned for the future.

MacWarriors

Chair: Kevin Cathey
Tuesday, 7:00PM 1103 SC

MacWarriors has been giving talks on Objective-C and tutorials on Foundation and Coca Touch. The idea is to get everyone a good, basic foundation on programming tools for the iPhone and start developing neat iPhone applications. On election night, they knowledge gained during previous tutorials to build an iPhone application that tracked election results. One one of their bigger projects is My Campus. MacWarriors is developing a native iPhone application that will syndicate essential at-a-glance information to U of I students. A user can launch the app to get directions, find a place to eat, or figure out what to do on a Friday night. Professor Karrie Karahelios is also working get her entire class to come to Macwarriors meetings, thus tripling attendance.

SIGArch

Chair: Wit Riewrangboonya
Thursday, 6:00PM ACM Office.

SIGArch is currently working on a capacitive multitouch screen as the main project. The screen for the project has been completed, and they have finalized the circuit design and parts list for the project. They are now working on purchasing parts and prototyping the screen. The power-over-ethernet multicast speaker system has hit a major snag. Power over ethernet only provides 15 watts which is not enough to run a good speaker along side a microcontroller. Also, power over ethernet chips are relatively expensive. SIGArch is currently discussing using smaller speakers.

SIGArt

Chair: Nikhil Johri
Sunday, 4:00PM 0224 Siebel Center

SIGART is currently working on two projects for the 2008/09 semesters. The first project is an AOL Instant Messenger bot created in Python. The goal is to create a program that can carry on a convincing conversation with a human user via instant messages, and utilize various features of Natural Language Processing and Machine Learning. SIGART is also working on a stock price predictor in Java. It uses neural network logic to guess what the future prices of any given stock will be. The predictor automatically balances a wide variety of inputs to create an accurate output price. SIGArt has taught its members to use SVN and set up a trac wiki for the project.

SIGBio

Chair: Katie Snell
Monday, 6:30PM ACM Office

This semester, SIGBio is creating a game system that uses an eye-tracking camera and surface EMG instead of a typical controller. Specifically, SIGBio will apply this to the classic game Whack-a-Mole, using the eye-tracking to specify the target and muscle contraction to dictate the hit. This project would incorporate software, game building, and bioengineering. SIGBIO plans on adapting OpenEyes open source open-hardware kit and the eye-tracking software, Starburst.

SIGBot

Chair: Justin Conroy
Tuesday, 7:00PM 1110 Siebel

SIGBot is working four projects: a Jerry Sanders bot, a mechanical eye, a swarming cars project, and a RepRap (replicating rapid prototyper). The Mechanical Eye will be for an independent study, and the idea of this project is to build a camera that has the ability to control itself based on the video input it is receiving. It will be on two servos allowing it to pan and tilt. It will also have the ability to intelligently differentiate objects from their background and follow them. Initially the behavior will be rather simple, turning to follow objects of a certain color in a controlled environment with a background of a contrasting color. Planning also continues on the other three projects.

SIGDave

Chair: David Paola
Monday, 7:30PM 1104 Siebel

SIGDave has completed the design of the hovercraft, and will be going shopping soon to gather materials and begin building. SIGSoft is also implementing a compiler for the lolcode language. The compiler will

be optimized. SIGDave may be participating in the Rube Goldberg Machine competition as well.

SIGGRAPH

Chair: Andrew Christensen
Main meetings: Thursday, 7:00PM 0224 Siebel Center (Basement)
Maya and Blender Tutorials: Tuesday, 7PM 0220 Siebel Center (Basement)

SIGGRAPH is currently developing three projects. First, they are making a 3D animated short film about the planets playing keep-away with Earth's moon. Second, they working with Gamebuilders to produce a video game where the player is blind and fights zombies with visual echolocation. Finally, they are developing a research project using projection on abnormal surfaces. Earlier in the semester Prof. Donna Cox presented to SIGGRAPH, talking about scientific visualization work being done at the NCSA, the creation of an interdisciplinary multimedia-curriculum institute called eDREAM, and the process she and the jury of the international SIGGRAPH animation festival went through to chose the elements of award-winning animations. During the R|P Conference, SIGGRAPH was also joined at a short film development meeting by former SIGGRAPH chair and current Dreamworks software engineer Don Schmidt.

SIGMil

Chair: Aaron Gibson
Friday, 7:00PM 1104 Siebel Center

SIGMil has been giving talks throughout the semester on physical and computer security. They have given talks on lock security and on hiding processes and files in win32 systems. On Oct. 31, in honor of both halloween and the elections, they held a conference called "Hacking Politics: The Digital Age of Voting and Privacy." Guest speaker Matt Cheney discussed the influence of social networks on the election, and guest speaker Mike Perry talked about the loss of privacy in the digital age and what people can do about it. SIGmil is also working on a project to reprogram I-Clickers.

SIGNet

Chair: Christopher Clausen
Thursday, 7:00PM 1104 Siebel

SIGNet has spent some time discussing various networking things, include the 7-layer OSI model, intrusion detection systems, the insecurities of the SMTP protocol and the ease with which one can send a fake massmail to all of campus. SIGNet is helping SIGArch with some networking code on their projects, assuming equipment is purchased. SIGNet will probably be exploring various thin client or other low-powered computers. They are working on getting some power over ethernet equipment and hope to be able to run both Ethernet and electricity over the same wire to some kind of useful device before EOH.

SIGOps

Chair: Vijay Ramesh
Sunday, 6:00PM 1104 Siebel Center

SIGOPs is working on a userspace and kernel mode implementation of locate, a command that is used to find files on a unix file system. They are using inotify to update the file system database in realtime. They are also extending the zfs to handle version on write, and have finished writing a proposal to get a professor to sponsor this zfs project.

SIGPlan

Chair: Michael Ilseman
Monday, 7:00PM 1112 SC

SIGPLan has been giving talks on programming languages this semester. Michael Ilseman gave a talk on APL to kick off the Student Lecture Series on the 4th.

SIGSAC

Chair: Christopher Clausen
Thursday, 7:00PM 1104 Siebel

SIGSAC has spent some time discussing various computer security things, including intrusion prevention systems, the insecurities of the SMTP protocol and the difficulty of preventing fake massmail from being sent to all of campus. SIGSAC may help CITES Security with some computer security guides for both general users and server setup. SIGSAC also has a virtual machine set up for testing and is hoping to do some hands-on experimentation with snort, nmap, wireshark, and other networking and security tools once they are installed on the vm.

SIGSoft

Chair: David Paola SigSoft meets every Monday at 6:30pm in 1103 Siebel.
Crescendo meets Sundays at 3pm in 1103 Siebel.
Monday, 6:30PM 1103 Siebel

SigSoft has three active projects. The first is Pathways, which is being renovated to work with Google Maps and take into account newer buildings. The second project is Crescendo, which is a music voting system that lets people in the ACM office decide what they want to hear. It weighs votes and decides which music to play in what order. The third project is Bookworm. ACM has a ton of technical books, and there is no good way to search them for specific books or specific subjects. Bookworm aims to change that by indexing and making the book title searchable.

SIGWin

Chair: Puskar Naha
Thursday, 6:30PM 1104 Siebel

SIGWin, after being revived, is now working out meeting schedule. They are working on updating Wipt repository so that it is useful. Puskar has been demoing old projects and giving tutorials. They are doing a simple Win32 GUI tutorial and an talk on the Windows API.

Webmonkeys

Chair: Christopher Cizek
Wednesday, 7:00PM 0220 Siebel Center

Webmonkeys is coding for a web-based Risk game. Most of the data models for the game are set up.

ACM Committees

ACM Top4 2008-2009:

Chair: Wit Reiwrangboonya
Vice-Chair: Kim Vlcek
Treasurer: Jim Wordelman
Secretary: Tara Roys

Top4 is responsible for making sure everything runs smoothly. If you have a question, ask one of them!

ACM Admins 2008

Andrew Deason, Dennis Griffith, Nathan Lawrence, David Majnemer, Wit Riewrangboonya, James Wordelman, and Nick Riley.

A special thanks to all our admins for making the ACM computing cluster run smoothly!

This issue of Banks of the Boneyard was compiled by Tara Roys, Nov. 2008