Banks of the Boneyard

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From the Chair

by Paul Swanson

The ACM Midwestern Conference was a huge success. Over thirty companies recruited students at Friday's job fair, and we had over 250 attendees from seven states. Congratulations to the five home teams (of 15) in MechMania; none of them placed in the final competition.

Now we're starting to focus on different things. Of course, the planning committee for Reflections/Projections IV is just starting up (email reflections@acm.uiuc.edu if you're interested in helping). But ACM's other huge event for the academic year is just around the corner, at the Engineering Open House in March. Most of our Special Interest Groups are planning to present a project or two at the EOH, and they will need a lot of help. So check out some of their ideas in the rest of this issue.

In the nearer future, Col. Roy Horton of the U.S. Air Force will be speaking and fielding questions about computer security and the military at our November General Meeting (November 6 at 6:00 P.M. in 1320 DCL), followed by free soda.

The ACM Executive Board is still looking for a Lectureship Chair, to coordinate speakers for our General Meetings, and a Publicity Chair, to ensure that our events get publicized properly.

INSIDE THIS ISSUE

Our Special Interest Groups (SIGs) have started to meet regularly, and have begun to work on their Engineering Open House projects. Here you will see what's new with your favorite SIG! A full list of all of our available SIGs is conveniently located at the back of this newsletter.

Upcoming Events

Nov. 6 at 6:00 P.M. in 1320 DCL
General Meeting - Speaker, Col. Roy Horton, will discuss military security. Free beverages will be served.

Nov. 15 at 8:00 P.M. in Illini Union
Live Music Show - See SIGMusic members perform a free concert at the Courtyard Cafe.

Dec. 5-6 at 7:00 P.M. in 1320 DCL
Sounds & Visions - A spectacular concert produced by SIGMusic and SIGGraph members to display entirely original music and graphics.

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The newsletter staff encourages ACM members to submit letters to the editor, articles, photographs and artwork for future issues of the *Banks of the Boneyard*. If you would like to contribute or participate in its creation, please email boneyard@acm.uiuc.edu.

SIGDave

by Mike Kolb

Hey, kids. It's me again, Mike Kolb, chair of those wacky SIGDave people. This month we've been learning about C and C++, and begun work on our new project: networked tamagotchi. That's right! We, the easily distracted, have set out on a quest to bring those annoying little buggers to life on our own systems. Our clients, however, are going to have an off switch! Find out more about it, or just show up and talk about cool stuff for a while. We meet Wednesdays at 8:00 P.M. in the ACM office (1225 DCL). For more information, email me at sigdave@uiuc.edu. See ya there!

Be Users Group (BUG) - Developers Wanted.
Inquire at http://www.acm.uiuc.edu/bug

SigMicro

by Steven Bytnar

The world of computers is quickly changing these days, but the future will prove to be even more exciting. As Professor Torrellas pointed out during a lecture on Trends in Processor and Memory Organization at the ACM Conference (you were there weren't you?), there are many different directions that microcomputers are heading. Some range from being simplistic and massively parallel, to overly-complex feature-packed designs which assume that processors will be able to break the 4GHz barrier by the year 2010. To help generate interest and further build on ideas already being considered for future memory and processor designs, there will be a few discussions and presentations given on computer architecture before the end of the semester. Watch for them.

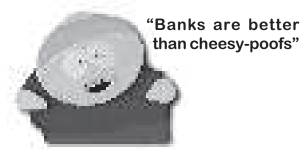
SIG-BIO

by Robert Hyslop

Once again hundreds, um... a handful, of SIGBio members are hard at work on our latest installment of the Virtual Anatomy Handbook (VAT). Thus far, we have spent countless hours debating the pros and cons of different methods of presenting the digestive system to unsuspecting Web surfers. So far, we have discussed using 3D modeling integrated with VRML to allow true interactivity and navigation of the organs in the system. Also, we plan on adding some audio and video to transform this "lesson" into more than just a colorful on-line book.

Another project that was conceived in the last few weeks was our pre-medical forum. The forum will be a great place for students in the pre-medicine curriculum here at the University of Illinois to share valuable insight as well as to dispell ridiculous rumors (e.g., "You must be at least 6'5" tall, speak five languages, and saved three lives before you're accepted into medical school."). By Engineering Open House, we hope to have an online chat room, discussion board, class database of which courses to take and which ones to avoid, as well as, how to survive the trials and tribuations of the application process.

If these projects sound interesting, please stop by one of our meetings on Tuesdays at 6:00 P.M. in 1225 DCL. We always welcome new members and encourage those who might have not have experience in either web development or biology, but are willing to learn.



SigGraph

by Steven Mycynek

SIGGraph has gotten off to a roaring start this year with many introductory workshops. Completed workshops include:

- Introductory graphics concepts and mathematics (*Russ Simmons*)
- 3-D modeling and animation concepts, processes, and techniques (*Steve Mycynek and Mitch Fishman*)
- Introductory graphics programming (*Russ Simmons*)
- Character animation (*David Moore*)
- Raydream studio (*Ken Wronkiewicz*)
- SoftImage (*Brian Klamik*)
- OpenGL (*Hans Van Slooten, Brian Klamik, and Russ Simmons*)

Now that the basics have been covered, SIGGraph will be focusing mostly on ideas for projects, including the semi-annual music and animation concert, *Sounds and Visions*. Please come to one of our meetings if you are interested in *Sounds and Visions* or want to share any other project ideas with us. SIGGraph meets on Thursdays at 7:00 P.M. in 1225 DCL.

Three cheers for digital!

by Brian Burgner

SIGArch at ACM@UIUC would like to thank Digital Semiconductor for its generosity. This semester, DEC donated a StrongARM SA-110 CPU along with an evaluation board and software development kit to SIGArch for research purposes. Currently, SIGArch has decided to put this chip to use in their portable MPEG decoder. Thank you, DEC; none of this would have been possible without your support!

SIGVR

by Ray Kaplan

SIGVR's main project right now is a VRML work shop. VRML is the Virtual Reality Modeling Language which contains a description of a virtual world in a simple text file for easy and quick transmission over the web. Each of our workshops is being held during the SIGVR meetings. We are not too far into the workshop so if you are interested in learning VRML come to one of our meetings or visit http://www.acm.uiuc.edu/sigvr/workshop. Also we will be receiving some graphical VRML development tools soon so we will be working with those as well.

After we are finished with the VRML workshop, we will start working on some projects that use VRML, like a VRML website (in addition to our current html website), and possibly a multiplayer chess game. If you have any ideas for a VRML project please come to one of our meetings.

SIGVR meets every Monday at 7:00 PM on 1225 DCL, the ACM office, and from there we usually move to 1330 DCL. For more information, email sigvr@uiuc.edu or visit our website at http://www.acm.uiuc.edu/sigvr.

SigArt

by Misha Voloshin

Hello, artificial intelligence fans far and wide! The last month has been an extremely productive one for SIGArt, the group for people who are interested in getting computers to make intelligent decisions and exhibit cognitive processes.

The first few weeks featured a series of small low-powered workshops outlining modern AI technologies and techniques. We covered general topics such as neural networks, genetic algorithms, bayesian networks, and complex finite-state deterministic automata (in English, machines with a small series of very simple rules that nonetheless do really cool and generally unpredictable stuff). We talked about abstract concepts such as solution spaces, annealing, and top-down versus bottom-up design philosophies. We'll still be having semi-focused workshops such as these at random meetings for the rest of the year, so anyone interested in joining SIGArt without a background in AI can look forward to receiving a "crash course" in the modern state of the art.

Meanwhile, we have chosen a primary focus for our EOH project: a navigational robot. Thanks to hardware available to us from SIGArch, we have been given the capability to demonstrate robotics at EOH. As such, we are designing and eventually building a robot which will roam the halls of the first floor of DCL. After mapping out the building, we should be able to pick this thing up and put it down in some random location and orientation, and after a bit of exploring, our robot should figure out where it is and head back home to the ACM office. The project is ambitious, but, armed with papers and documents outlining previous research along lines such as this, we should have all the resources we need to make this project succeed.

We're also organizing a tour of the Beckman Robotics Lab, hopefully coming up very soon. From this tour, we will probably get some ideas regarding the control and design of our own robot. Besides, it'll also be a lot of fun to get to see all the neat toys in there!

As you can see, SIGArt's projects are escalating quite a bit. If you want to get in on the action, you're more than welcome to come join us. You can also email sigart@acm.uiuc.edu and ask to join the team. Or you can come to our meetings, at 7:30 P.M. on Thursdays in DCL (the exact room number changes often, but is written on the white board on the ACM door). Hope to see you there!

SIGOPS

by Doug Armstrong

Windows users hate Macs. Mac users hate Win dows. UNIX people disdain them all. But while all these holy wars rage on around us, SIGOps has taken a different approach: writing our own operating systems! We've been conducting a "Roll Your Own OS" workshop this semester that's been highly successful. We have different operating systems ranging from mildly eccentric to incorporating a plethora of esoteric Object Oriented Programming (OOP) concepts. Sound cool? Well, it's not too late to get started! Since each person is working on their own OS, you can work on your own timetable. Check out the web pages as most of the actual workshop material is in an online form. SIGOps has some great resources to help you create your own "Linux." In addition to two test beds, working in the ACM office and an extensive library, there usually is someone around able to help you in case you get stuck.

Using these homebrew operating systems SIGOps is going to create a DFE (Distributed Fish Environment) for Engineering Open House '98. We are creating a shared code base for various network and graphics drivers with which to network the different operating systems together. Then by developing some protocol layers and a FishNet client, we plan to set up a massive distributed cross-platform fish tank. Want to participate but don't want to write your own OS? Hey, that's fine too. Write a client for the BeOS, write one for Linux, write one for <*insert your favorite OS here*>. So come some Tuesday and check us out! Our meetings are at 8:00 P.M. in 1102 DCL.

The MacWarriors would like to thank Apple Corporation for its recent support.

MacWarriors

by Steven Bytnar

If you have not been with us, well, you missed an impromptu ResEdit/HexEdit hacking workshop which introduced ideas on how games store game information in memory versus storage on disk, as well as how to creatively 'update' a game's sounds. Another group discussion we participated in was a non-disclosure presentation by Apple of some of their future technologies. We even sponsored and joined in a special Rhapsody DR1 technical presentation that was also given by Apple on campus. Some of our future workshops might deal with HFS+, Apple's new disk format that will appear in MacOS 8.1 due this fall, and our group programming projects will be starting soon.

We have a very exciting semester ahead of us. Rhapsody, Apple Computer's next generation operating system is emerging as a technology that we will be focusing on. Workshops in Objective C as well as becoming familiar with the new user experience will be done before the semester is through.

Don't forget to visit our website at http://www.acm.uiuc.edu/sigmicro/macwarriors.