Department of Computer Science & Engineering
Open House Presentations

Saturday, May 1st

Continuously Running – All exhibits are in the Paul G. Allen Center (CSE) unless noted otherwise.

STUDENT PROJECT SHOWCASE – Gates Commons Conference Room, 6th floor
You could be working on exciting capstone design projects like these in four years. These videos feature our undergraduate majors showcasing their team projects in areas such as animation, robotics, and embedded systems.

ADA BYRON LOVELACE: TO DREAM TOMORROW – CSE 403
Lovelace lived in the 1800s, but she was some hundred years ahead of her time in recognizing the vast potential of computing. Through diaries and letters, this movie reveals her visionary collaboration with leading scientists and mathematicians of her day.

HOW IT ALL WORKS: Puzzles and Games – 3rd-5th Floor Breakout Areas, near stairwell
How do computers store numbers and text? How do computers and fax machines transmit images? What are all the parts inside a computer, and what do they do? The answers are surprisingly simple, and even fun, with these puzzles, activities, and demonstrations. This activity is appropriate for early elementary students and above.

COMPUTERIZED BIRDSONG EXHIBIT (CSE 466: EMBEDDED SYSTEMS COURSE PROJECT, AUTUMN 2003) - Atrium
Tiny computers that communicate via radio will be chirping birdsongs in our building. With the passing of time, these "birds" imitate each other, and the flock gradually changes to new songs.

COMPUTER SCIENCE IN THE REAL WORLD – Poster Presentations outside Gates Commons, 6th floor
Think computer science is just about programming? Think again. These posters feature recent graduates from our program who are out in the real world applying their computer science expertise in a wide variety of careers, everything from computational biology to law.

HEROINES OF COMPUTING: Women in Computing from the 1800’s to the Present Day – Poster Presentation
What do the first computer programmer (born in 1815), the author of the first computer science textbook, the inventor of the compiler, and the inventor of computerized phone switching have in common? They were all women. Will you—or someone you know-- be the next heroine of computing?

Scheduled Events

10:00-12:00 TABLETS IN THE CLASSROOM: Teaching and Learning with Pen-Based Computers and Wireless Networking – CSE 305
In the classroom of the future, we will all have clipboard-sized computers that we can write on with electronic pens, and computers will help teachers recognize when their students are confused or falling behind in class. CSE Undergraduates Crystal Hoyer and Jonathan Su will give you a glimpse of this classroom of the future today with this hands-on demonstration of Tablet PCs and wireless networking.

10:00-2:00 STUDENT CIRCUITS: Digital Systems Design Projects Showcase – CSE 003 (basement)
Computer science isn’t just about programming, it’s about creating new computing devices, too! Stop by to see a sampling of digital devices our students have produced in recent project courses.

- The Tilt-o-meter - a stepper motor project from Bruce Hemingway's CSE 466 class. As you tilt the motor, the control software attempts to keep the sensor level.

- Video Drawing - Carl Ebeling's 567 students built video effects devices to run in real time. One student produced a charcoal-renderer which operates in real time to convert video to a picture with drawing characteristics.

- Physical Modeling Synthesis - Carl Ebeling's 467 class implemented a digital audio synthesis technique which calculates a physical model of a guitar string. You can trigger sounds in real time.
10:00-12:00 COMPUTERIZED MICROBIOLOGY LAB ASSISTANT – CSE 405

UW computer scientists have teamed up with microbiologists to develop the lab bench of the future. CSE graduate student, Jiwon Kim, will demonstrate a computer system that assists microbiologists with experiment procedure and automatically records the experiment steps by watching the lab scientist at work. In addition, CSE undergraduate, Eliana Hechter will be on hand to talk about how her research project ties computer science and biology too.

11:00-1:00 BEYOND POINT & CLICK: Making Computing Accessible for the Sight-Impaired – CSE 303

See the voice synthesis software, Braille notetaking devices, and Braille displays ("electronic Braille paper") that help sight-impaired people utilize computers. This demo will include a glimpse of the latest UW research on Braille publication of textbook diagrams and graphs.

10:30-12:00 INTRO TO INTRO PROGRAMMING: Projects and Experiences – CSE 022 (basement)

Undergraduates from our introductory programming courses (CSE 142 and 143) will demonstrate their course projects and show what you can learn to do in just a few weeks of course instruction. In addition to seeing a variety of colorful projects, you’ll be able to talk to the undergraduates and learn first-hand what it’s like to study CSE at UW.

12:00-1:00 ONLINE LEARNING ENVIRONMENTS LAB – Sieg Hall, ROOM 322

The OLE lab supports research in the design and testing of web-based educational software systems. See CSE undergraduate students demonstrate the INFACt online learning system, a collaborative drawing game, and visual messaging.

12:00-1:00 MOBILE ROBOTICS – CSE 491

See Professor Dieter Fox’s team of soccer playing Sony AIBO dogs in action! CSE undergraduates Matt Mohebbi and Griff Hazen will demo a 3 versus 3 soccer match with fully autonomous robots. During the game, they will describe the underlying software system that accomplishes tasks such as localization, ball tracking and behavior.

12:00-2:00 REACH OUT & TRANSFER SOME DATA – CSE 003

What if a vending machine could tell you whether you’re allergic to the snack you point at before you buy it? What if you could copy and paste data between two devices without using a floppy disk, memory device, or network cable? Kurt Partridge will show you the technology he’s developing to make this and much more possible.

1:00-2:00 MODELING HUMAN FACIAL EXPRESSIONS IN 3-D – CSE 203

UW’s cutting-edge computer animation software starts with a short video clip of a person making faces and produces a realistic 3-D model that you can manipulate to show a wide range of emotions, even with new facial expressions that weren’t made in the original video clip! See video samples of the results and meet CSE graduate students, Li Zhang and Noah Snavely, who are working on this project.

1:00-2:00 RECORDING BODY MOVEMENT: 3-D Motion Capture – CSE 014 (basement)

See how computers can precisely track and record how humans and animals move using multiple cameras and special software. Motion capture helps physical therapists diagnose and treat problems with walking and balance. “Mo-cap” is also the secret behind realistic movements by computer-generated characters in your favorite movies: Titanic, Star Wars, Shrek, and The Lord of the Rings (Gollum). Try having your movements recorded in this interactive demo with graduate students Mira Doncheva and Karen Liu!