COLLEGE OF ENGINEERING • UNIVERSITY OF CALIFORNIA, BERKELEY

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RACHEL SHAFER PHOTO

His Research Tipsheet

OPPORTUNITIES ABOUND: ChemE junior Siddarth Satish, right, explains to attendees how to land a research position at the Undergraduate Research Forum on March 9. Satish, who works in ChemE assistant professor Jhih-Wei Chu's research group, shared this advice: Make an effort to learn about a professor's research before you approach him or her; read a paper, say, or draw up a list of questions. Professors won't expect you to know everything, but they'll take you more seriously if you to demonstrate your curiosity.

Movie magician

Lucasfilm exec to speak on April 7

PHOTO COURTESY OF LUCASFILM

RICHARD KERRIS: Don't miss this rare opportunity to learn about technical strategy at Lucasfilm. The event will take place on Tuesday, April 7, noon in Sibley Auditorium, Bechtel Engineering Center.

American Graffiti, Raiders of the Lost Ark, Star Wars. The celebrated company behind these blockbuster films and their special effects wizardry, Lucasfilm, is coming to campus — but not to make a movie.

On Tuesday, April 7, Richard Kerris, the company's chief technology officer, will discuss the past and present of technology at Lucasfilm and offer a peek at the future. In one of the college's "View from the Top" lectures, Kerris will speak at noon in Sibley Auditorium, Bechtel Engineering Center.

Kerris, who joined the company in December 2007, is responsible for development and execution of technology strategy for Industrial Light & Magic, Skywalker Sound, LucasArts, Lucasfilm Animation, Lucasfilm Animation Singapore and

Continued on page 2

POP QUIZ

What do you want to accomplish before you're 30?

Joy Makdisi, BioE senior
"I'd like to finish medical school, have chosen a specialty and have done a few trips abroad working on global health."

Scott Parker, NE/MSE sophomore
"I'd like to have an established career in nuclear energy and a family."

Dana Samuel, CEE senior
"I want to have traveled and to be doing something in sustainable green building."

Mark Lu, EECS freshman
"Have a wife and kids, a Ph.D. and maybe be an associate professor in computer science, and have something on the side that makes at least $350,000 per year."

Movie magician

Continued from page 1

Lucas Online. Prior to that, he worked at Apple and Alias Wavefront. Kerris is a member of the Society of Motion Pictures and Television Engineers and the Visual Effects Society, where he holds a seat on the Technology Advisory Board.

In anticipation of the event, *Engineering News* interviews Kerris. Read the full interview at *Engineering News* online.

When did you first see *Star Wars*?
It was at a movie theater in New Jersey, where I grew up, back in high school. It was a great experience and it left me wondering how they did all the effects. That wonderment has kept me doing what I do — it still does. I'm the biggest fan of our creative and development teams. The idea is generated and then executed, and the story unfolds. That's the magic for me.

During your watch, what has been the company's biggest accomplishment technology-wise?
Directors work on our stage and, using a synthetic camera, interactively view and manipulate what resides in space around the computer graphics elements. This allows them to craft scenes, do actual takes and see results, as it happens.

What *is* the technology strategy at Lucasfilm?
The strategy for technology has always been that it's *not* about the technology; it's about the story. Technology is a means to an end. That comes from George [Lucas], and our goal is to always tell the story in the vision that he and other directors want to see it. They dream up the impossible and our groups make it happen.

How has the global recession affected strategy and plans?
We've been challenged to do more for less. We will never compromise on quality, but we can save on how we get things done. Innovation is essential during these down times in the economy and I'm proud that we're not slowing down on that at all.

Are you hiring engineers?
We are always looking for great engineers and artists! ■

www.lucasfilm.com

Input, output glory

Berkeley team heads to elite programming competition

Eight problems to solve. Five hours to do it. Three programmers and one computer per team.

It all comes down to numbers at the 33rd annual Association for Computing Machinery International Collegiate Programming Contest World Finals, which begin April 18 in Stockholm, Sweden. The team that solves the most problems in the fewest attempts and lowest cumulative time wins.

More than 7,109 teams representing 1,838 universities around the world have already competed regionally; 100 teams were brilliant enough to qualify for the IBM-sponsored world finals, the Olympics of college programming. Berkeley is one of them.

Last November, EECS students James Cook, Svetoslav Kolev and Joseph Lim solved 8 of 10 problems at a regional competition hosted by Stanford. "The competition's server crashed right as we submitted the last answer," Cook recalls. "We weren't sure if our answer would be counted, and we weren't sure if we even got it right." So when the team nailed it and placed third, qualifying for the finals, Cook says he felt surprised and lucky. The last time Berkeley sent a team to the world finals was 2003.

The competition's problem sets, which require writing algorithms to calculate the answer, range from designing an instant translation device to helping commuters get to work faster through transit systems.

RACHEL SHAFER PHOTO

NO SWEAT: EECS graduate student James Cook has been competing in computer programming contests since high school.

"These competitions are almost more rewarding than my research," Cook says. "In research, you're never given the problem. You have to figure out what it is. And then you may never find the right answer. Here, you solve eight problems in five hours."

Cook hopes his team places in the top 50 at the world finals. Teams from Russia and China are perennial favorites to win first place; MIT took second last year. ■

cm2prod.baylor.edu

announcements

Get the complete College calendar at **www.coe.berkeley.edu/events**.

Speech, speech!

Audition to be the 2009 College of Engineering Commencement student speaker! Auditions will be held Wednesday, April 1, at 6 p.m. Your speech should be: optimistic, four to five minutes long, have an original theme that is forward looking, contain some nostalgia about your time at Cal, be non-technical and aimed at family and friends. To audition, contact Dawn Kramer at *dkramer@berkeley.edu* by MONDAY, MARCH 30.

IIE Western Regional Conference

All majors are invited to the Institute of Industrial Engineers (IIE) Western Regional Conference, April 3 through 5, at UC Berkeley. Immerse yourself in discussions of entrepreneurship, innovation and leadership and explore new directions in industrial engineering. The event will also feature social networking events, a career fair and a technical paper competition. Registration is required; the deadline is THURSDAY, APRIL 2. Register and get more details at *iie.berkeley.edu/conference*.

Commencement registration

Commencement 2009 will be a traditional all-college ceremony held on Saturday, May 23, from 8:30 a.m. to 12 p.m., at Hearst Greek Theatre. Departmental receptions will follow at various campus locations. Visit the official website *www.coe.berkeley.edu/commencement* to register online to participate in Commencement and reserve your tickets. There is a six-ticket limit per graduating student. Registration deadline is MONDAY, APRIL 20. If you have questions, please contact Dawn Kramer at *dkramer@berkeley.edu*.

Be a tour guide for the day

We need six College of Engineering students to lead tours of the college from 11 a.m. to 12 p.m. on Cal Day, Saturday, April 18. In appreciation of your "tour duty," you'll get free lunch, a thank you gift and our unbounded gratitude! To volunteer, contact Dawn Kramer at *dkramer@berkeley.edu*.

career corner

WITH CEE ALUM MICHAEL BRUNO

After graduating from Cal, Bruno (B.S.'81 CEE) worked briefly as a coastal engineer for the New Jersey Department of Environmental Protection before returning to academia to earn his doctorate in civil-ocean engineering from MIT–Woods Hole Oceanographic Institute in 1986. In 1989, he joined the faculty at Stevens Institute of Technology in Hoboken, New Jersey, and in 2007 was appointed dean of its Schaefer School of Engineering and Science.

PHOTO COURTESY OF MICHAEL BRUNO

What do you like about your job?
I have the opportunity to interact with students and faculty from all areas of engineering and science and to effect change that can position the university to contribute in a meaningful way to some of society's most pressing problems: alternative energy, security and health care.

How did you go about finding your interest/passion?
I'm an ocean engineer by training and am still involved in research investigating how climate change impacts coastal communities. This interest — passion is a better word — was stirred by a series of courses I took in the early 1980s with environmental engineering professor Robert Wiegel [now emeritus] at Cal.

Why did you choose the academic track?
I've always viewed teaching as a noble pursuit, one that provides the immediate gratification of seeing your students succeed and the satisfaction of passing on both your knowledge and your passion to the next generation. And it keeps you young!

What do you recommend students do during school to prepare for an academic career?
Choose a field that excites and inspires you: You'll be great at it. All else will follow.

What are some things to think about while considering a potential job?
Consider whether the job will provide the learning opportunities and the challenges to keep you excited for several years.

Have additional questions? E-mail Michael.Bruno@stevens.edu.

⟨of note⟩

New research center for NE

Last fall, the NE department announced the establishment of the Berkeley Nuclear Research Center (BNRC), a joint venture between UC Berkeley, Lawrence Livermore National Laboratory and Los Alamos National Laboratory. BNRC, funded by a $3.8 million award from the UC Office of the President Lab Fees Research Program, will focus on nuclear energy, nuclear waste repositories and environmental impact, nuclear regulation and non-proliferation. The center, up and running by this fall, will support several graduate students and postdoctoral researchers per year. ■

APPLE Engineering wants your vote in ASUC election

Boost your representation among Cal's student leadership and support your fellow engineers. Vote between Tuesday, April 7, and Thursday, April 9. Polling stations are located throughout campus and the residence halls for your convenience. For details, go to *http://election.asuc.org*.

RACHEL SHAFER PHOTO

MORE NORTHSIDE ON SOUTHSIDE: From left, Matt Samuels, Sandra Yael Cohen, Tu Tran and Sam Kwok Lee are campaigning for ASUC officer positions.

Sandra Yael Cohen, CEE freshman
Running for: Senator
Qualifications: Member of the American Society of Civil Engineers, social committee of the Society of Women Engineers and Engineering Week Committee; intern for APPLE Engineering Senator Tu Tran
Goals: Promote and expand the BearWALK program, help with restructuring of Engineers' Joint Council, sponsor more intersocietal events to help build the engineering community and plan the revitalization of Lower Sproul Plaza.
Quote: "I'm a creative person with many ideas for how to improve Berkeley's environment. I want to work closely with the engineering groups and offer them vital resources to help them progress."

Matt Samuels, BioE junior
Running for: Senator
Qualifications: Recording secretary and former advising officer for Tau Beta Pi, research assistant in Fiona Doyle's materials science lab
Goals: Implement more community service events, improve intersocietal collaboration and communication and increase scholarship opportunities to exceptional students and visibility of existing scholarships.
Quote: "We need to get our fair share of the funding pie. Engineers make up over 15 percent of undergraduates, but we currently receive less than 3 percent of ASUC's total expenditures."

Sam Kwok Lee, EECS sophomore
Running for: Senator
Qualifications: President and cofounder of Theta Tau, coed engineering fraternity, member of the technology committee of the Regents' and Chancellors' Scholars Association
Goals: Secure funding to support long-term growth for new student groups, advocate for businesses that serve student needs as Lower Sproul Plaza is revitalized and promote awareness of student engineering achievements and activities.
Quote: "I know what it takes to make a difference instead of waiting for changes to come. As ASUC senator, I will listen to what engineers and students want and strive to fulfill those goals as if they were my own."

Tu Tran, BioE/Rhetoric junior
Running for: Executive vice president
Qualifications: Current ASUC senator; cofounder and coordinator of Berkeley Engineers and Mentors
Goals: Create a web-based student life portal where students can find event information, connect with clubs and more; implement a textbook rental system at ASUC bookstore and promote greater efficiency in the senate.
Quote: "I've worked hard over the past couple years to serve the student body, going without sleep and, at times, even giving up academics to get things done. I've always put students and student groups first." ■

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