

careers

WHERE THE JOBS ARE: SOFTWARE ENGINEERING

Mobile apps and cloud computing are driving demand for new engineering grads

THE WORST of the recession is behind us. While the job outlook for electrical and computer engineers was not dire last year, the uptick in the economy brings even happier tidings for the class of 2011. Everyone—from Microsoft and Google to small start-ups—seems to be looking for talented programmers and developers.

Grads with software skills have particularly bright prospects. We can credit the proliferation of social media and new devices, says Forrest Shull, a senior scientist at the Fraunhofer Center for Experimental Software Engineering, one of several U.S. arms of the giant German research organization.

“Over the last two years or so, cloud computing and mobile applications are the two paradigms that have increased demand for software engineers,” says Shull. “We really like walking around everywhere now with our smartphones, tablets, and other gadgets.”

A December 2010 report by the London-based Centre for Economics and Business Research estimated that cloud computing could add 2.4 million jobs in Europe’s



biggest economies by 2015.

As another hopeful sign, recruiters are back on campus this year. Scott Midkiff, head of the electrical and computer engineering department at Virginia Tech, in Blacksburg, says they “are reappearing with significant hiring goals,” particularly in the areas of defense, energy, consulting, banking and finance, and computing. Notable as well is the increased presence of information and communications technology companies, which had drastically reduced their hiring after the telecom and dot-com busts.

Beverly Principal, assistant director of employment services at Stanford, is seeing the same thing. “On-campus recruiting was higher this year, especially for students focused in computer science, hardware, software, and programming,” she says.

The National Association of Colleges and Employers, in Bethlehem, Pa., expects hiring of new grads to be up 19 percent. Computer science, electrical engineering, and computer engineering are

among the top 10 degrees on employers’ most-wanted lists. Those three degrees are also in the top five of the association’s list of the 10 top-paid degrees—a list that consists entirely of technology majors. Of the three, computer science grads are making the most—slightly more than US \$63 000 on average. While overall offers to engineering grads have stayed roughly the same as last year, EEs saw the biggest jump (4.4 percent) to reach \$61 690.

Software engineering, a field that has been strong for a while, was voted the best job for 2011 by career guidance website CareerCast. Software engineers earned the most after chemical engineers in 2009, according to the U.S. Bureau of Labor Statistics. They are also some of the most employed—their unemployment rate was 4.6 percent compared with 5.4 for EEs in 2010.

Four social networking companies—Facebook, Google, Twitter, and online gaming company Zynga—are expected to create around 10 000 jobs, a good portion

of which will be for software engineers. However, talented engineers of all stripes are wanted, says Facebook representative Slater Tow. “We’re primarily looking for what people have done, what they’ve built. This is more important to us than just academic credentials.”

Tech bigwigs such as Dell, Hewlett-Packard, Lockheed Martin, and Microsoft are also hiring, as are smaller companies, including Agilent, Altera, Analog Devices, and Applied Materials.

Many new jobs are overseas, even as powerhouse manufacturers Nokia and Panasonic cut thousands of jobs. Google is planning to make more than 1000 new hires in Europe, at least half of which will require engineering and computer science credentials, and the company is posting hundreds of jobs across the Asia-Pacific region. Siemens and Microsoft are recruiting in Europe, while Microsoft is hiring in the Asia-Pacific (mainly China, India, Malaysia, and Singapore), looking particularly for cloud technology skills. Software and IT jobs remain plentiful in India and China.

In the United States, entrepreneurship has been on an upswing since the current recession began. Kerri Boivin, director of the engineering career resource center at the University of Michigan, in Ann Arbor, says, “We are seeing more students becoming entrepreneurs [and] have seen a significant increase in start-ups posting jobs.” —PRACHI PATEL