What Can You Do With a Computer Science Major?

By Rebecca VanderMeulen

Think about the things you do every day: posting status updates, downloading songs, checking your class schedule online . . .

Do you think it would be cool to design the technologies that make those devices work better? To invent new ones? To help make people's lives and jobs easier? Then maybe computer science is the right path for you!

But first, let's set some things straight. Computer scientists aren't the people you call when your printer stops working. And they don't sit in dark cubicles all day without talking to anyone.

"Whatever you think computer science is, you're wrong," says Dianna Xu, chair of the computer science department at Bryn Mawr College in Bryn Mawr, Pennsylvania.

So . . . what is it?

Computer scientists use technology to solve problems. They write software to make computers do new things or accomplish tasks more efficiently. They create applications for mobile devices, develop websites, and program software. And you can find them everywhere, from big tech firms and government agencies to startups and nonprofits.

"It's more than everyday computing," says Liz Burd, Pro-Vice Chancellor in Learning and Teaching at the University of Newcastle in Australia. "It's building the tools that enable everyday computing."

One of the biggest things computer science majors learn is how to logically think through a problem and find a way to solve it. Chris Stephenson, Executive Director of the Computer Science Teachers Association, adds that good computer scientists also understand teamwork and are good communicators. They work with other people all the time, she says, including those who don't come from a CS background. "No matter how brilliant you are, at some point you will have to explain to someone how your product works or what your code does," Stephenson says.

Bobby Schnabel, Dean of the School of Informatics and Computing at Indiana University Bloomington, says some students go into computer science because they like working with computers. Others want to solve problems with technology. Whatever your passion, a CS degree is a great foundation for all kinds of jobs.

Yaw Anokwa, entrepreneur
Anokwa was nine years old when he first programmed a computer. It was his father's, used in teaching journalism at Butler University in Indianapolis, and Anokwa wasn't allowed to touch it—but he did anyway, entering an online competition to win a faster modem.

In high school he started a business repairing computers for his classmates' parents. In college he earned two degrees: one in computer science from Butler and one in electrical engineering from Indiana University—Purdue University Indianapolis. There Anokwa began to think that people could use computing to change the world for the better. After all, computers are everywhere: on your desk, in your pocket, and inside devices you use every day. "Software is very powerful," he says.

During graduate school, Anokwa spent six months volunteering with a public health organization in Rwanda, where he helped introduce an electronic medical record system that's now used nationwide. That experience inspired Anokwa to develop Open Data Kit, a platform that replaces paper forms with smart phones and tablet computers. Its tools are used all over the world. Election observers use it to monitor the polls in Egypt, health workers in Kenya use it to track efforts to combat HIV, and Brazilians use it to measure illegal logging in the rainforest. Anokwa and a partner eventually started a company called Nafundi, which consults clients using tools like Open Data Kit.

"These days, day-to-day I don't do a lot of programming," Anokwa says. "Those skills are in my head. All the skills I need now I learned in my first couple of years of undergrad."

Joey Brown, software engineer
Brown meant to study philosophy when he enrolled at Washington and Lee University in Lexington, Virginia. But he also liked tinkering with computers. He took a class about logic, then classes on computer programming. It might not seem like the two subjects have anything in common, but Brown liked how they both relied on logical thinking. "It seems like a very straightforward correlation," he says.

The summer after graduating with his computer science degree, he went back to his hometown of