Computing…Where the Jobs Are

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Computers are everywhere. They’re in our pockets. They’re on our walls. They’re in our cars. They’re a critical piece of our infrastructure, from power grids to traffic lights to the inner workings of our financial markets. And all of these computers have one thing in common. They depend on software to tell them what to do.

But who exactly is going to write this software?

Considering how fast our world is being transformed by technology, you might expect the number of students studying computer science today to be at an all-time high. You’d be wrong. In fact, fewer students are studying computer science, and fewer schools are teaching it, than a decade ago.

At a time when demand for skilled programmers has never been higher, we’re turning out fewer computer scientists. Even in this time of high unemployment, thousands of jobs, many of them right here in [INSERT STATE/CITY], are going unfilled for a lack of enough individuals with the right skill sets.

Why is this? And how can we address it?

The problem begins in our middle and high schools. Nine out of ten of our schools do not offer computer programming classes. In [SCHOOL DISTRICT] last year, only [NUMBER] students took the college-level Advanced Placement (AP) Computer Science Exam, just [%] of all students who took an AP in our state. We’re simply not doing enough to prepare or encourage our students to pursue these high-paying, vital careers.

Nearly all major computing innovations were invented here in this country, but we’re at risk of losing that leadership if we don’t do something now.

We need to make some changes.

[OPTIONAL FOR STATES WHERE THIS APPLIES]

One change would be to start counting computer science classes towards high school graduation requirements. Right now in [INSERT STATE], computer science classes are treated as electives, and can’t be used to fulfill math or science requirements. In other states where they’ve made this change, the number of students signing up for these classes has doubled

We can also start working with students at a young age to spark their interest in computer science and programming. Our children should not just know how to use apps and play video games – they should know how to create them. Children can learn the basics of programming as early as the second grade.

We need to recruit more computer science teachers and encourage professional development within their field. Today there are many online resources that can help teachers access and keep up to date with the latest technology for their students.

According to the Bureau of Labor Statistics, by 2020, there will be 9.2 million jobs in STEM fields. Half of those jobs—4.6 million—will be in computing or information technology. Who will fill these jobs if our children are not given the opportunity to gain the skills needed?

This week, December 8–14, is Computer Science Education Week. In schools throughout [STATE], our students will be participating in a national Hour of Code, demystifying the subject of computer science and hopefully whetting their appetites to go on and learn more. I will be joining them, and I invite you to join in as well. Everyone should learn how to code. Visit [www.csedweek.org](http://www.csedweek.org) to learn more and get started. And support our efforts to bring computer science to more schools in [STATE].