# Why study Computer Science?

Because no matter what your interests are, your knowledge of basic programming will **open doors**.

### Meaningful Work

IT professionals work on creative teams to develop cutting-edge products and solutions that save lives, solve health problems, improve the environment, and keep us connected.

Many fields have been **transformed** by applications of computing technology that **you** can learn to build:

- **Medicine**: enhanced diagnostics, epidemic tracking, medical record systems
- **Apparel design**: automated pattern drafting, virtual clothing design
- **Sports**: workout motivator, motion capture training, computer science in sports
- **Robotics**: emotional dancing robots for autism, military mule
- **International development**: communication tool, election tracking, disaster management
- **Music**: Auto-Tune in rap, search by humming
- **Games**: smart toy blocks, art, business and science of video games, army training
- **Literature**: digitizing books

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**Tahoma's Computer Science Options:**

- **NEW** College Exploration of Computer Science Principles (for the non-techie) – *1 semester*
    - Learn to create, use, and understand technology applications to make your life easier and more efficient.
    - Pre-requisite: none
- AP Computer Science A
    - Learn how to program in the programming language JAVA – *yearlong*
    - No previous computer knowledge is needed; but a strong foundation in Math is helpful. Pre-requisite: Geometry
- College Computer Programming II – *yearlong*
    - Learn more complicated programming concepts, including: abstract data types, algorithms, and programming design techniques.
    - Pre-requisite: AP Computer Science A

**Articles about Computer Science:**

- [Developers you love and why they love developing](#) - "I realized that the most powerful way to affect the world is to write computer software"

- [Kids, Programming, and doing more](#) – "Over the coming years, **the collaboration between computers and machine is only going to grow**. Computers will do what they are good at, large scale data processing, computation, and analysis. Humans will do what they are good at, finding patterns, intuiting promising paths forward despite noise and missing data, and collaborative problem solving. **Those who can fully use computers, and especially those who can program computers, will be more productive.** Computers are a powerful tool for those who can wield it."

- [This 15-Year-Old Built An App To Help His High School Debate Team. It Could Do Much More Than That](#) - "I'm a Lincoln-Douglas debater, and it involves lots of prep, reading evidence files and cases. It's a long process for me, and I wanted to find something to condense an article into something more concise and readable. … **I didn't start with the sense of wanting to release a product. I started with, how can I take this process and make it better** for my debate team?

- [When the Nerds Go Marching In](#): *How a dream team of engineers from Facebook, Twitter, and Google built the software that drove Barack Obama's reelection* – "By the end, the campaign produced exactly what it should have: a hybrid of the desires of everyone on Obama's team. **They raised hundreds of millions of dollars online, made unprecedented progress in voter targeting, and built everything atop the most stable technical infrastructure of any presidential campaign**."

- [These 11 tech giants are paying software engineers on average $100,000 or more](#) – "**The market for software developers remains red hot.** And companies looking to attract the best and brightest minds are paying top dollar — stressing yet again the need for additional educational resources in the fields of science, engineering and math. … **In Seattle as a whole, software engineers reported an average base pay of $102,006.** That was the [second highest in the nation](#), coming in about $5,000 behind San Francisco where the average base pay stood at $107,798."

*Find out more at http://mshess.com*