

Student
Aaron Goldsmith

Pathway
The Digital Age

Major
Computer Science

Pathway specific courses

- 1) **CSCI 61** *Data Structures*
- 2) **ENGR 19** *Ethics in Technology*
- 3) **COEN 146** *Computer Networks*
- 4) **CSCI163** *Theory Of Algorithms*

Additional courses mentioned

- **ENGL 106** *Advanced Writing*
 - **ANTH 154** *Environmental Anthropology*
 - The Experiential Learning for Social Justice
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The Changes We See: *Emerging Technology in a Digital Age*

The digital age feels like the most exciting time to be alive because technological innovations are enabling people throughout the world to connect with each other and share information. The technology that we use today has become an essential part of our lives because it has become foundational in almost all aspects of our lives. Each new scientific breakthrough allows future generations to build on past knowledge and create their own discoveries. This epoch has allowed countries to develop at an unprecedented rate because information is accessible instantaneously over vast distances. Receiving a Jesuit education from Santa Clara University helped me make connections about the world and my own life. The world is a massive place with billions of individuals, but coordination and cooperation is still crucial for creating a sustainable future.

The Internet has been one of the most influential technologies for creating a digitally connected world. Additionally, the internet has provided individuals with a platform for their voices and ideas to be expressed. *Introduction to Computer Networks* reinforced how the internet has been designed to be structured and organized, while also being scalable and dynamic. There were several courses that taught me to think about how different levels of organization influence their environment. In *Theory of Algorithms* we learned to solve difficult problems by finding a specific “base case” to program first, and then generalizing to all other cases. Similarly, in *Environmental Anthropology*, our conversations about how to approach global issues began by first looking at the issue from a local level.

At the start of my college career I knew that choosing to major in Computer Science would mean that I would have to take many difficult programming courses in addition to my other core requirements. However, *The Digital Age* pathway helped me understand how I intend to use my strengths as a programmer to continue to develop the world. In *Ethics in Technology*, our class discussed how some businesses care more about money than their customers safety. For example, nineteen automakers faced legal repercussion after they knowingly waited to recall their airbags after discovering some were defective and dangerous. The decision to withhold information wasn’t purposefully malicious, but it was still a calculated one. The

auto-companies knew that by releasing damaging information their businesses could financially suffer, so they waited to disclose any information until the National Highway Traffic and Safety took action in 2015. By the end of 2017, there were still 46 million defective airbags and over a dozen associated deaths. With a new generation of leaders, I know that our responsibility is to positively lead the world into a continued success for the greater good of all of mankind.

Working with technology in the modern age, means one must consider the repercussions of every action or idea that they create. Innovators have a responsibility to change the world in positive ways, but technology has the ability to be used in ways that even the inventor didn't foresee. In *Ethics in Technology*, our class discussed several technologies that were created with a specific purpose but inevitably gets misused and ends up doing harm. As a programmer, one must consider not only what their software does, but how effective it is. The digital age relies on trust and participation of all individuals. I believe that with the right minds at work, all 7.6 billion people on Earth can improve their quality of life by making some positive change in the world.

For as long as I can remember I have always enjoyed helping others. The ELSJ course that I took provided me with an opportunity to visit a San Jose middle school on a weekly basis to help teach STEM topics to students. I surprised myself with how much I enjoyed it, so the following quarter I began working for a mentoring company where I have been able to teach motivated middle schoolers how to program in Java. I feel lucky to be able to inspire young students to create amazing and fun applications, but also that I can be a positive influence for them and help direct them towards a successful future. Mentoring has existed long before the digital age, but mentoring today means using technologies such as Skype and Github, which allows me to teach virtually from anywhere in the world with an internet connection.

Plungis, Jeff. *"Many Automakers Too Slow in Fixing Recalled Takata Airbags, Report Says."*

Consumer Reports,

www.consumerreports.org/airbags/automakers-too-slow-in-fixing-recalled-takata-airbags-nhtsa/.