

Careers in CS and CE

1. What are five professions within the fields of computer science or computer engineering? Provide a short job description for each of them. What is the income potential for these types of jobs? Give numbers. How do they compare to other professions? Give a few examples. What are the employment projections for the next 5 to 10 years for these five professions?

- (a) Cybersecurity - Writing code to protect people on the web. The pay is an average of \$100,000 a year. The job market for Cybersecurity is very understaffed and will continue growing in the next 5-10 years.
- (b) Mobile Development - Designing and building applications for mobile devices (tables, phones, wearables, etc...). The pay is an average of \$72,000 annually. Nearly every website I visited suggested that the job market would continue growing for this job.
- (c) Web Developer - Building webpages and web-apps on the internet and sometimes working on back-end code. The average pay is about \$55,000. The demand for web developers is projected to grow 27% in the next several years.
- (d) Developer Operations Specialist - A devops is someone who suffers at the hands of the developers. A devops is in charge of managing systems and teams when developing software. The average salary for a devops specialist is \$100,000 a year. The field is projected to grow, as well as provide room for people to move into management. This is one of the more higher-paying jobs that I looked up.
- (e) Database Manager - A database manager is someone who manages databases, usually for a large company. The average pay is around \$70,000 per year. The market is projected to grow around 11% in the next few years.

2. Which CS/CE specialization does your team consider the most interesting one? Why?

I think that Mobile Development is one of the more interesting fields, since mobile devices are becoming more and more powerful and widespread every day. The market has a lot of promise and doesn't seem to be in high demand.

3. What are some other interesting facts about CS/CE careers that you came across during your research?

I searched for CE jobs a few times and most of the CE jobs were programming based, which is not something that I expected. Typically, I think of CE people as designing circuitry and working more with hardware.

Interviewing Another Student

I interviewed Matt McCarthy for this part of the assignment.

1. What is your major and why did you choose it?

Computer Science, since CNU doesn't have a math masters

2. What do you like/dislike about your major?

I like that it gives me an excuse to do math/focus on the theoretical side of math. I don't like having to run simulations and experiments.

3. What was your favorite class you took?

Parallel Processing (a 600 level class)

4. What's your favorite proof? Your least favorite proof?

Favorite: Fundamental Homomorphism Proof. Least Favorite: Anything that involves heavy calculation.

5. Do you have any advice for students in the major?

Don't be afraid of math.