

Sloan Career Cornerstone Center

Profiles of Engineering Students



Gus Anderson

**Electrical Engineering
Ph.D Student
Drexel University**

Prior Education:

BS/MS, Computer Engineering, Drexel University, 2004

Education in Progress:

Currently working toward Ph.D. in Electrical Engineering
Drexel University

Advice to Students:

"Hands down the best advice I ever received was, 'Don't study to pass the test, study to understand and master the topic (and the grades will take care of themselves).'"

Interview:

► **Q: When did you know you wanted to become an Engineer?**

► **Anderson:** I have always been drawn to figuring out what makes things work and how they are put together. In high school I had the opportunity to take part in several science fair projects that allowed me to see first hand what engineering really was. It was great to take a question and systematically evaluate the validity of a solution.

► **Q: What is your college experience like in terms of the amount of time you find you need to study each day?**

► **Anderson:** I found that a 3 credit undergraduate course takes approximately 3 hours a week out of the classroom. A 3 credit graduate course takes approximately 6 hours a week out of the classroom.

► **Q: Are you incorporating any work experiences while you are a student? (include both internships/co-ops and any other jobs you may be holding while in school)**

► **Anderson:** YES, one of the greatest experiences at Drexel has been the co-ops. They provide great insight by applying what is learned in the classroom into the real world. As an example, I spent one of my co-ops designing a resonant RLC circuit for an alarm system. This was not something that I had taken a class on up to this point, yet it provided incredible context for the following semester when I took "Introduction to Electric Circuits."

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▶ Q: How did you prepare for your college experience?

▶ Anderson: I am not sure there is much we can do to prepare ourselves for college. College is unlike anything else one can experience. While it is very enjoyable it is also very challenging. The greatest advice I have received is, "Never get behind and don't study to pass the test, study to understand and master the topic."

▶ Q: Did/do you have a mentor that has helped guide you thus far? (If so, describe the impact of this person on your education and career plans)

▶ Anderson: Yes. I was fortunate to have people in my life who have "been there" before, to provide an external perspective. The mentors that I have had did not come through a formal mentorship program. Rather, my academic advisors and co-op bosses willingly gave me advice. During college there are a ton of decisions to make that have a great effect on the rest of our life. Fortunately, there are so many people who have "been there" before, just waiting for someone to ask their advice.

▶ Q: Is there a specialty area you have focused on in engineering? If so, what is it, and how did you decide on this specialty? Also, at what point in your college experience did you decide?

▶ Anderson: Going into college I was sure that I wanted to go into engineering, but could not decide between architectural, electrical, or computer engineering. Fortunately the first year of engineering school is the same regardless of the specialty. This provided a year of examining what was involved with each specialty. Since computing has always been a hobby of mine, when one of my advisors shared with me that I should major in something I love, I declared my specialty in ECE.

▶ Q: Why did you decide to go for a Ph.D? How did you think this might impact your employment down the road?

▶ Anderson: It was a tough decision, however my advisor instructed me that if I was planning to complete a Ph.D. sometime in my life, now was the time. He went on to say that most individuals who do not complete their Ph.D. right after MS will never do so. Since I was fairly certain about my desire to continue research professionally (whether for a university or industry) and a Ph.D. is a necessary component in that field, I decided to continue on towards the Ph.D.

▶ Q: Is it hard to balance your engineering studies with other college activities (entertainment, travel, having fun)?

▶ Anderson: Not really, as long I remained disciplined and worked hard, there was plenty of free time.

▶ Q: Do you find yourself studying more in a team situation or alone? Do you have a preference?

▶ Anderson: There is no way one can graduate from engineering school without the help of others. No one person is able to absorb every last detail that a professor teaches. Something that you miss someone else did not and visa versa.

▶ Q: What's the hardest thing you have found about your college experience working toward a degree in engineering?

▶ Anderson: Being dedicated to a class that seems to have no direct application to what I would eventually do as an engineer.

- ▶ Q: What's the most rewarding aspect about working toward a degree in engineering?
- ▶ Anderson: It is so much fun to see something that I made, designed and built, work and be used.

- ▶ Q: Do you think you'll continue studying engineering, or do you think you'll switch to another area? Why?
- ▶ Anderson: I am confident I will continue studying engineering.

- ▶ Q: Do you have any idea what sort of industry or work you'd like to do when you graduate? If so, how did you find out about this industry or field?
- ▶ Anderson: There is so much that I can do with an engineering degree, however, I think I will end up continuing research in the area of computer networks.

- ▶ Q: Do you think you'll want to pursue additional degrees after you complete the one you are working on? Why or why not?
- ▶ Anderson: Once I graduate with my Ph.D., in the foreseeable future, I do not think I will pursue any more degrees.

- ▶ Q: Did you think that school will prepare you for the way the work gets done in the real world?
- ▶ Anderson: I think that school has helped in preparation for the "real world." The experiences that I gained during my co-ops were absolutely invaluable.

- ▶ Q: How many engineering schools did you apply to? How many accepted you?
- ▶ Anderson: I applied to three, and was accepted to one.

- ▶ Q: Did you have a "first choice?" Were you accepted into your "first choice?"
- ▶ Anderson: Drexel was not my first choice, but looking back I am SO glad that I came here.

- ▶ Q: How did you decide which college/university to go to?
- ▶ Anderson: Well, (1) Drexel was the only school I was accepted to, and (2) the scholarships were huge.

- ▶ Q: What should high school students be doing to prepare themselves to take on the work that engineering students do?
- ▶ Anderson: Come to school with an open mind, be prepared to work hard and have a good time doing it. In the end, if you want to be an engineer, school will be so much fun.

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