

BSOS Alumni Career Profile: Senior Human Factors Engineer

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Ben Zwillinger, '14
Title: Senior Human Factors Engineer
Employer: Cambridge Consultants
Major: Psychology
Minor: Neuroscience

What do you enjoy most about your current position?

I enjoy working on multidisciplinary teams to create ground-breaking products. The ability to work collaboratively with engineers, scientists, and designers to achieve the best results for our clients is very rewarding. All of my coworkers are smart, motivated, and bring a different set of skills and experiences to the table. Additionally, because we are a consultancy, we are always working on new and exciting projects, so I am consistently being challenged and learning new skills.

What is a typical day like in your position?

Like many jobs, I do not have a typical day. I could be brainstorming with mechanical and electrical engineers to come up with a novel solution for a robotic system, or developing a set of instructions with a designer for a drug delivery device. I could be traveling across the country to conduct usability research with users or meeting with clients to present our proposed User Interface.

What experiences did you find most helpful in preparing you for this position?

Working at the Help Center, which is the student-run Peer Counseling and Crisis Intervention Hotline at UMD. I gained invaluable experience about how to communicate effectively and being more self-aware, both valuable skills for life and for being an effective team member, no matter the job. Additionally, I worked in the undergraduate

psychology office as the Undergraduate Program Manager. That experience allowed me the opportunity to talk with other psychology majors daily, which helped me focus my interests and goals.

How has your coursework helped you in your current position?

Human Factors engineering is heavily based in psychology, and I use what I learned as a psychology major every day. Without understanding the user, including how they learn and process information, the biases that influence them, the heuristics they use, or even the best way to persuade them, it is impossible to effectively design products for them. My background in psychology has given me the foundations necessary for understanding the end users and using that understanding to design the best possible products. Furthermore, part of my responsibilities are to design and conduct user studies. My understanding of research design, data analysis, and critical thinking, thanks to classes at UMD, has given me the necessary skills to feel completely confident in these tasks.

Any job or internship advice?

For a job in human factors, having internships is invaluable for getting a job in the field once you graduate.

- Some companies, like Cambridge Consultants, offer Co-op positions which are a great way to spend 6 months (take a semester off from school, you won't regret it) getting real-world work experience.
- No matter what field you want to be in, start doing the work you want to be doing once you graduate. If you are interested in Human Factors, find someone in the Hinman CEOs program developing a product and offer to help them conduct user research. Or team up with a computer science major who is developing an app and offer to conduct a heuristic analysis.
- Having worked on real products and being able to talk about those experiences and learnings will give you a leg up during interviews.

Any additional tips?

I implore everyone to take classes, even if unnecessary to complete the graduation requirements, in fields that interest them. I knew I wanted to use psychology in product design, so I took code+form (ARTT479A) with Brandon Morse, which was an eye-opening course with an amazing professor. Some of my favorite classes were outside of my degree and about topics that I wanted to explore further for my own benefit.