

My name is Jacob Taylor Cassady. I am double majoring in Computer Science & Engineering (CSE) and Electrical Engineering (EE) at the University of Louisville's J.B. Speed School. There are several factors that led to this decision including my inner purpose, a change in majors, and some assumptions about the engineering professions. I am very confident in my decision to pick these majors.

I have gone through a few professions during my six years as an undergraduate, but each have remained focused on a central goal of being able to help people in a real way. It is important to me that my daily work benefits as many people as possible. I chose both of my majors CSE and EE because I saw artificial intelligence and robotics as something that could make an astronomical difference to a large number of people due to its ability to combat climate change and contribute to critical objectives in healthcare, space exploration, and more.

I began my college career as a pre-med biology student in UofL's Arts & Sciences department. I would work long overnight shifts in emergency rooms as a medical scribe and go to class during the day. When it was around 3 AM and we had breaks between patients, I would help pass the time by doing programming tutorials on websites like codecademy and khanacademy. Growing up I had always seen programming as an enjoyable experience but a waste of time like playing a video game. It wasn't until my friend got a Bioengineering Internship at NASA Johnson Space Center (JSC) that I seriously investigated engineering professions. I quickly saw Computer Engineering, specifically as it applies to robotics and artificial intelligence, as a medium for both helping people and enjoying my hobby of programming. After two years of Biology, I changed my major to CECS (now CSE) without my father's approval.

During my first internship at NASA JSC, I worked in Extravehicular Activity (EVA) Management on a database of past, present, and future spacesuit engineering documents. It wasn't at all what my assumptions were. When I returned to UofL, I picked up Electrical Engineering as a second major to better market myself as a control systems/artificial intelligence focused engineer. My current assumptions are that working in this field will include a lifetime of education and the ability to impact many people in beneficial ways.

After 6 long years as an undergrad, I am very confident in my decision and excited to graduate this semester. As I continue to work in control systems, I am reminded everyday how lucky I am to play with what I consider adult LEGOs. I hope to continue to specialize towards humanoid or aquatic robots. In future engineering courses, I would like to learn more about aerospace engineering principles such as how different geometries effect the computational fluid dynamics of an aquatic robotic system. I think understanding more about aerospace engineering will better help me focus on what type of robotic control systems I want to specialize in.