

My name is Zuguang Liu and I am writing to express my interest in pursuing graduate study in Electrical and Computer Engineering at Bradley University.

During my undergraduate years at the University of Cincinnati, I enrolled in the Electrical and Computer Engineering program, with a minor in Mathematics and Embedded systems, and received my Bachelor of Science degree in May 2021. Over my undergraduate study, I worked hard in my classes as well as in Co-op (internships) and on-campus research labs. Over one Co-op, I worked as an R&D engineer at Ethicon Inc, a company that designs and engineers medical surgery devices, where I was involved in the development of the electrical system of a new product prototype. My other working experience is at Jergens Inc, a manufacturing company where I implemented an automatic assembly system with controllers and mechatronics. In the MHCI research lab at the University of Cincinnati, I applied data analysis methods to decompose and classify streamlined electroencephalogram (EEG) data. For my senior Capstone project, together with three other students, we designed a modular garden monitoring system as a proof-of-concept IoT device, and provided implementation with hardware, firmware, and user application software.

After I received my Bachelor of Science degree, I was also halfway in completing my Master's Degree thanks to an experimental curriculum the university offered. While conflicted between continuing my graduate study and joining professional engineering workforce, I was offered a full-time position at Caterpillar Inc. as a software tester and validation engineer and worked for more than a year in the same team up to now. However, after talking to various people including my supervisor at work, coworkers and professors at Bradley University, I decided to pick up my graduate study again at Bradley University Electrical and Computer Engineering Department.

I believe my academic achievements and professional experience up to now has given me a great foundation for my future graduate study, as they could help me relate to the real-world problem and scenarios I have encountered. Furthermore, I also believe that at Bradley University, I will be able to make connections with people who I can learn from. For example, Dr. Jing Wang's current research focuses on robotics and controls, which aligns well with my interest in intelligent robotic systems, so by studying under him, I would also be able to share ideas with him in this area.

Thinking into the future, after completing my graduate study at Bradley University, I hope I would be able to understand the technical aspect of my current work at Caterpillar more. I also hope by obtaining a Master's Degree, I can prove that I am an engineer capable enough to accept and resolve more challenges, which leads to more professional opportunities open to me.

Considering my extensive experience in Electrical and Computer Engineering academically and professionally, I believe I am a capable and passionate student for the ECE graduate program at Bradley University. I look forward to starting another meaningful academic study for more advanced education at Bradley University.