

Projects within the Ability & Innovation Lab for Undergraduate Research

Mission

The aim of the Ability & Innovation Lab is to empower human performance through engineering and design. We take a human-centered design approach and work closely with patients, clinicians, and families. Whether on the athletic field, in the clinic, or at home we seek to understand how humans move and how we can improve performance and quality of life.

Expectations for Undergraduate Researchers

Participating in research can give you an opportunity to apply the knowledge and skills you are learning in the classroom to important clinical challenges. Research is challenging - by definition, most of what you will be doing has never been done before. As such, we are looking for students who are self-starters, independent, and willing to explore uncharted territory. As a lab, we work as a team to improve human ability.

Our general expectations for undergraduate researchers include:

- Dedicating a minimum of three quarters to volunteer in the lab. During the academic year, classes are your top priority. These are challenging projects and three quarters will give you the time to dive in and make significant contributions to research.
- Spending a 5-10 hours per week working on research (including weekly meetings). We know that classes, work, and other extracurricular activities keep your schedule busy. Ask yourself if you have time to responsibly dedicate to pursuing research.
- Participating in weekly research meetings. You should come prepared to these meetings with slides or other handouts to share your progress, discuss challenges, and help your peers with their research.
- Helping with outreach activities. We commonly have requests from K-12 students and other groups to tour our lab. We ask for volunteers from the lab to help with these tours and share their experience.
- Keeping clear documentation and a lab notebook. Others will likely be building upon and learning from your work in the future. Thus it is important that everyone keeps clear notes (including comments in any computer code) so that you can easily share what you have done.
- Defining clear goals and outcomes. We aim for everyone to produce a final report, abstract, or other publication based upon their project. We will work with you to help define these goals for your specific project and career goals.