Akshara Molleti (she/her/hers)

aksharamolleti@gmail.com • 952-200-6277 • https://www.linkedin.com/in/akshara-molleti/

EDUCATION

University of Minnesota, College of Science and Engineering   **Minneapolis, MN**
BS in Computer Science, BEng in Biomedical Engineering   *Expected Graduation: May 2025*
- **Related Coursework:** Algorithms and Data Structures, Machine Architecture and Organization, Discrete Structures, Advanced Programming Principles, Biomedical Systems and Signals

WORK EXPERIENCE

Earl E Bakken Medical Devices Center   *Minneapolis, MN*
Undergraduate Research Assistant   June 2023 - Dec 2023
- Developed a Virtual Reality (VR) simulator the facilitated the procedural aspects of knee surgery for physicians
- Leveraged the Unity platform and employed Python programming to intricately code the functionalities
- Ensured seamless integration with Oculus headsets to deliver an immersive and advanced training environment

Multicultural Center for Academic Excellence (MCAE)   *Minneapolis, MN*
Student Coordinator   July 2023 - August 2023
- Facilitated communication between and delivered media to MCAE staff and cohort of ~600 incoming students
- Creatively planned and coordinated events to develop an inclusive and welcoming community on campus

Medtronic   *Plymouth, MN*
Research and Development Intern   May 2022 - August 2022
- Innovated a materials database that filtered and searched through materials information on 20+ products
- Implemented stakeholder feedback to improve efficiency and user experience of materials database
- Independently acquired proficiency in SolidWorks to design a 3D anatomical model
- Wrote testing reports and conducting testing protocols related to either real-time aging or ISO standards
- Conducted informational interviews with 30+ people to establish strong relationships across the organization

PROJECTS

Computer Vision Wheelchair   **Minneapolis, MN**
Hardware Team Member   *Jan 2024 - current*
- Implemented automation on a manual wheelchair through the integration of motors and detection components
- Facilitated the connection of the wheelchair to a Raspberry Pi for acquiring gyroscope and accelerometer data
- Acquired welding skills to successfully attach motors to the wheelchair, contributing to the overall usability

Hidden Markov Model   **Minneapolis, MN**
Primary Researcher   *August 2023 - Jan 2024*
- Developed a Hidden Markov Model (HMM) utilizing Python and MATLAB
- Effectively processed and integrated complex datasets into the model, enabling the usage of machine learning to forecast future rat behavior based on their observed actions

SKILLS

Programming: Java, Python, C, MATLAB, OCaml, Assembly, HTML, CSS
Tools: Microsoft Office, Google Suite, Intellij, Visual Studio Code, Git, Arduino, Raspberry Pi, SolidWorks

LEADERSHIP EXPERIENCE

Indian Student Association   *Minneapolis, MN*
Co-President   March 2022 - current
- Co-led board of 17 members, delegating responsibilities and troubleshooting issues between students
- Supported board-affiliated groups and committees, encompassing finance, events, public relations, and advocacy
- Cross-functionally communicated with both internal and external stakeholders to orchestrate events