AADI CHAUHAN

☐ 587 664 5137 | @ aadichauhan321@gmailcom | in/aadi-chauhan-b8b903211 | aadic0

EDUCATION

University of Calgary   Calgary, Alberta
B.Sc. in Software Engineering   *Sep 2022 – May 2027*
Minor Degree in Biomedical Engineering   *Sep 2024 – May 2027*

Relevant coursework: Data Structure & Algorithms, Networked Systems, Embedded Software and Hardware Systems, Applied Operating Systems, Discrete Mathematics, Object Oriented Programming, Full Stack Web Development, Fundamentals of Electrical Circuits and Machines

Looking for a 12-16 month internship as part of an internship term.

SKILLS

Languages: C/C++, C#, Python, RISC-V ASL, Java, JavaScript, SQL, HTML, CSS, Matlab

Technologies: Git, Microcontrollers, Single Board Computers, React.js, MySQL, AWS Cloud Services, OpenCV, TensorFlow, Postman, Bash, Flask, React, QT

INVOLVEMENT

Vice President of Software Engineering
Augmented Reality for Medicine   *Sep 2023 – Present*
- Lead a team of software engineers in developing augmented reality applications. This includes overseeing project planning, design, and implementation phases to ensure successful completion.
- Manage version control and code review processes to maintain high-quality code standards.
- Write and read detailed and clear documentation to ensure all projects are reproducible.

Controls Team Software Member
Schulich Space Rover Team   *Sep 2024 – January 2025*
- Developed an inverse kinematics math library in C++, enabling precise control and positioning of a multi-degree-of-freedom robotic arm for complex tasks.
- Programmed firmware to interface with controllers, motors, and sensors, ensuring seamless communication and efficient operation of the robotic arm.
- Optimized communication protocols between the robotic arm and the control system, reducing latency and improving responsiveness.

PROJECTS

Hand Gesture Recognition System for Augmented Reality |
- Leveraged OpenCV, Mediapipe, and Tensorflow to create a hand-tracking model capable of recognizing gestures such as zoom, point, pinch, and more.
- Used transmission control protocol to send values to a separate Unity program utilized for rendering and visualization.
- Collected and trained data using a batched gradient descent training method for the project to recognize specific custom gestures created directly for augmented reality.

Real Time Weather Display Using a Microcontroller and Python Server |
- Created a Python script for getting information about the weather in any location and encoding that information into unsigned binary.
- Used ANT communication protocol to wirelessly send signed/unsigned bytes using the Ctypes library to an ARM-based custom-made custom development board with an ATMEL microcontroller.
- Used C to program the microcontroller to decode the binary information and display the weather conditions on an LCD screen.

CERTIFICATIONS

2024 EiE Firmware 1 Certificate of Completion (Embedded in Embedded): Certified in using the ARM Cortex-M microcontroller designed and engineered by the Embedded in Embedded organization at the University of Calgary. (2024)