AMIN FAHIMINIA

Computer Engineering Student at UBC

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EDUCATION

BACHLOR OF APPLIED SCIENCE
COMPUTER ENGINEEING
University of British Columbia

Dean's Honor List –
Sessional Average 84.4%

KEY SKILLS

Coding: Python, System Verilog, ARM Assembly, Java, C, JavaScript, TypeScript

Frameworks: Flask, TCP/UDP, Protocols, Socket.IO, Docker, JUnit/unittest, Jupyter Notebook, React JS/Material UI, NumPy/Matplotlib

Applications/Tools: Git/GitHub, Linux (SSH), ModelSim, Quartus, VS Code, Arduino

Soft Skills: Highly organized, Excellent attention to details, Adaptable to new environments and situations, Effective in building and maintaining peer relationships

OBJECTIVE

To become a proficient software engineer, enabling me to apply my knowledge of computer engineering and problem-solving skills to develop and maintain high-quality software solutions. I am excited to have the opportunity to work in the technology industry and use my passion for learning to grow as a developer.

TECHNICAL EXPERIENCE

Software Developer

UBC Uncrewed Aircraft Systems — *September 2021 – Present*

- Created a Flask server capable of handling dynamic flight mission queues in the form of GET and POST requests, sending appropriate coordinates to the drone in real time.
- Constructed a web-application utilizing the React framework as well as Typescript, HTML, and CSS that streamed a live feed from an autonomous gimble and provided means for real-time control. Utilized in competition.
- Developed a comprehensive backend using Python and Socket.IO, enabling a reliable connection between the ground control system and the drone during competition.
- Worked in a fast-paced Agile team environment, delivering high-quality results under strict competition time constraints.

TECHNICAL PROJECTS

Turing-Complete SystemVerilog CPU — *September – December 2022*

- Designed a fully functional CPU, complete with a Datapath, controller FSM, and RAM/Register Modules.
- Employed tools such as Modelsim and Quartus to aid in the verification and synthesis process.
- Implemented a subset of the ARM Assembly Instruction set, enabling the machine to run scripts in real time.

OTHER EXPERINCES

Camp Councilor/Swimming Instructor
The City of Calgary, AB
September 2020 – June 2021

- Demonstrated leadership by planning activities and guiding campers via structured plans throughout the day.
- Educated children through coordinated swimming lessons during allocated times.
- Took initiative by providing direct supervision and ensuring the safety of all patrons on the facility.

TECHNCICAL COURSES

- Software Construction (Java Software Engineering Course)
- Computer Systems (Combinational and Sequential Circuits, HDL's, digital system design)
- Python Core Bootcamp

INTERESTS

Hiking
Basketball
Biking
Tech
Reading

TECHNICAL PROJECTS- CONTINUED

Twitter Listener Server *November – December 2022*

- Integrated a thread-safe query service for fetching Tweets using Twitter's built-in API in Java.
- Implemented a dynamic caching algorithm that offsets heavy network use from multiple clients.
- Developed a server that wrapped for the service, allowing it to be hosted on the web to handle requests from clients worldwide

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Big Data Analysis Project *March – June 2021*

- Conducted an observational study using the data-analysis capabilities of Python, resulting the paper being entered into a competition at the national level.
- Employed tools such as Jupyter Notebook, Panda, NumPy and Matplotlib; pulled data from a vast array of datasets to construct a comprehensive research paper with detailed findings.

EXTRACURRICULARS

STEM Junior Mentor *September 2020 – June 2021*
STEM Fellowship of Canada, Calgary, AB

- Mentored/taught young students in STEM related subjects
- Led classes though subjects pertaining to math, science, and engineering design
- Thoroughly drafted and planned the sessions so that they would be engaging and fun