

Amraj Aujla

🌐 amrajaujla.ca

✉ amrajaujla@hotmail.com

📞 Amraj-Aujla

📠 778-237-2752

EDUCATION

University of British Columbia

Sept 2021 - May 2026

Bachelor of Applied Science in Computer Engineering; CGPA: 80.4%

Vancouver, BC

Coursework: Software Construction, Computer Architecture, Data Structures and Algorithms, Circuit Analysis, Math Proofs

TECHNICAL EXPERIENCE

Subbots ([Homepage](#))

University of British Columbia

Software Developer

Sept 2022 - Present

- Assisting the development of a navigation system with ROS 2, Linux, C++, and Python
- Analyzed and improved the efficiency of previous code
- Communicating with 40+ engineers to establish effective and cost-efficient solutions

PROJECTS

Multi-Client Server ([Description](#))

Nov 2022 – Dec 2022

- Built a thread-safe Java server for fetching Tweets using the Twitter API
- Implemented a client-server mechanism to route relevant messages/posts to specific users with JSON
- Created a thorough test suite to achieve 95% line and branch coverage
- Developed a datatype to store a specific interface relative to its individual timestamp and a delay parameter

RISC Machine

Nov 2022

- Constructed a Turing Complete 16-bit RISC with a Datapath, Controller FSM, RAM, and different register modules in Systems Verilog
- Sectioned the machine into 7 smaller modules to design, debug, and test with Quartus and ModelSim
- Developed the CPU to interpret HALT, STR, LDR, and other ARMv7 instructions within 20 cycles

Kamino Game ([Description](#))

Oct 2022 - Nov 2022

- Executed Dijkstra's shortest path and Kruskal's minimum spanning tree algorithms to improve efficiency
- Developed a graph data type using an adjacency list and matrix representation in Java
- Utilized JUnit to generate a thorough test suite to ensure 90%+ branch coverage

Rate My Professor Analyser ([Description](#))

Oct 2022 - Nov 2022

- Optimized an algorithm to match a sequence of keywords from a data set with 10,000 reviews and partitioned them based on gender and rating within 1 minute
- Implemented an auto-filler to complete words for users when typing
- Led and managed a team of three to complete the project within 2 weeks

OTHER EXPERIENCE

JOE'S BBQ BOAT

Vancouver, BC

Assistant Manager

June 2022 - Sept 2022

- Assigned, prioritized, and delegated tasks and responsibilities to a team of three employees
- Addressed customers courteously using suitable methods and problem-solving skills
- Acquired a Pleasure Craft Operator Card within 2 weeks of employment to assist the business with certified employees
- Managed and kept track of over \$30,000 worth of inventory

SKILLS

- **Languages:** Java, C, C++, Python, HTML/CSS, Arduino, ARM Assembly, Systems Verilog, ROS 2
- **Tools/Framework:** Git, Linux, SSH, Quartus, ModelSim, VS Code, IntelliJ, Visual Studio, SolidWorks, MATLAB, JUnit
- **Activities/Credentials:** Tutoring, Soccer, Basketball, and Pleasure Craft Operator Card