Arushan Arulraj

647-804-4681| a4arulra@uwaterloo.ca | linkedin.com/in/arushan-arulraj | github.com/arushan13

Skills & Interests

Languages & Tools: Python, C++, HTML, CSS, SQL, GitHub, Git, VS Code, Jupyter, LaTeX, Figma
Technical Skills: Arduinos, Microsoft Office, AutoCAD, TinkerCAD, Windows, Circuitry, Flowcharts, Circuit Diagrams, Photoshop, Illustrator, Premiere Pro
Certifications: Responsive Web Design - freeCodeCamp, Cisco Data Analytics, WHMIS

Experience

Engineering Intern Jan 2025 – Present
i2r Packaging Solutions *Brampton, ON*

- Incoming Winter 2025

Intern & Computer Technician Jun 2023 – Dec 2023
Canta Drafting Services *Scarborough, ON*

- Streamlined the onboarding time for all employees by **5-10** days by assisting in the setup and configuration of office **computer and network systems**
- Diagnosed and resolved **hardware reliability** issues and **software errors**, reducing error messages by **80%**
- Enhanced **system stability** by making permanent fixes to issues like freezing computers and applications not opening
- Gained **Excel** skills and used **AutoCAD** to design structural pieces, including **10+** custom columns and joists
- Provided language translation and communication support to facilitate smooth interactions with **4-6** customers a day

Projects

Arduino Color Memory Game | *C++, Arduino*

- Developed an **Arduino** game using **C++** to generate random LED sequences for players to replicate, with increasing difficulty
- Integrated **button-based input** and real-time feedback via a Piezo buzzer for incorrect pattern entries by users
- Debugged and refined the program to ensure **accurate synchronization** between button inputs and LED responses, improving game reliability and **user experience**

Arduino Fridge | *C++, Arduino*

- Engineered a **miniature Arduino-controlled refrigeration system** using **C++**, incorporating a servo-actuated **automatic** door mechanism
- Programmed **5 user-controlled features**, including a **button-activated** cooling fan to simulate refrigeration and **door-triggered LED illumination** for interior lighting
- Configured an **LCD screen** to display real-time temperature data, providing continuous monitoring of internal conditions and **implemented a rotary switch** for precise temperature adjustment

Text-Based Super Mario Game | *Python*

- Developed a text-based Super Mario game in Python, **utilizing modules** like **math, random and os** for game mechanics and implementing CPU-based gameplay enabling players to compete against the computer in **12+** mini-games over **8** different levels

Banking Management System | *Python*

- Programmed a Python-based banking management system with **text file I/O** for persistent data storage, allowing users to log in as either bankers or customers with distinct **role-based functionalities**.
- Used **an ASCII art-enhanced interface**, enabling customers to perform financial transactions (withdrawals, deposits, transfers), and bankers to review transaction histories, and perform account maintenance tasks (search, update, delete)

Education

University of Waterloo Waterloo, ON
Candidate for BASc (Computer Engineering) - Honours, Co-operative *Expected Graduation 2029*

- **Relevant Coursework:** Fundamentals of Programming, Engineering Profession and Practice, Project Studio