

ARUL ARORA

2A Systems Design Engineering | a93arora@uwaterloo.ca | 905-699-9427 | arularora.com

SKILLS

- **Development:** C/C++ • JavaScript • HTML • CSS • VBA • SQL • Object Oriented Programming • Software/API Testing
- **Tools:** Visual Studio • GitHub • Postman • Jira • Salesforce • Microsoft Office Suite • AutoCAD • COMSOL Multiphysics

EXPERIENCE

Software Integration Analyst, *Paramount Commerce and Mazooma* Toronto, ON. | Sep 2021 - Dec 2021

- Tested payment processing API calls in **3** merchant applications daily to troubleshoot issues during integration
- Expedited the end-to-end integration and deployment of the API product onto **native apps** by introducing a mobile emulator tool for functional testing and created an API test guideline, **saving over 50 hours of work per week**
- Collaborated cross-functionally with the development and QA team to diagnose and solve **15** issues regarding the API parameters in staging and production environments, resulting in an improved API used by **200 merchants**
- Generated weekly reports using **SQL** in the staging database with over **100 million records**, that displayed key metrics pertaining to the performance of the company's products which was used by product managers to ensure stability

Process Engineer Intern, *BWX Technologies* Cambridge, ON. | Jan 2021 - Apr 2021

- Accelerated a **\$140 million nuclear project** conducted on Bruce Power's Unit 3 reactor by collecting performance data that reduced reactor down time by 25%, resulting in cutting client's expenses by **\$2000 every minute**
- Developed the data collection software in **Excel VBA** that tracked, transferred, and computed data through databases
 - Collaborated with software developers to perform test scenarios and ensure solutions met business requirements
 - **Resolved 15 technical issues**, enhanced user experience, and **doubled the process speed** of data computation
- Designed a detailed logbook used amongst co-workers for the upcoming 12-hour day/night shift rotation that accumulated 100% of the necessary data during the shift and provided project managers with a history of past events

PROJECTS

Waterloop – Hyperloop Student Design Team

- **Software Communication Developer** Jan 2022 - Present
 - Developing a **CAN based communication network** inside the hyperloop which will be used to control pod subsystems and send telemetry data to the remote desktop controller to monitor and act on the state of the pod
- **Linear Induction Motor Researcher and Developer** Jan 2021 - Jan 2022
 - Designed linear induction motors in **AutoCAD** and simulated their magnetic flux densities in **COMSOL Multiphysics**, ultimately narrowing down to one motor that propels and levitates a hyperloop used in worldwide competitions
 - Researched ways to sustain magnetic levitation for long distances and presented findings to **110 members weekly**

Personal Website, *arularora.com* Feb 2021 - Present

- Constantly developing personal website using customized **HTML5**, **CSS3** and **JavaScript** code developed in **Visual Studio**
- Grasped a fundamental understanding of **web development** by watching and coding through 75 hours' worth of courses

EDUCATION

University of Waterloo, *Candidate for BAsC in Systems Design Engineering* Sep 2020 - Apr 2025

- **GPA:** 3.96/4.0 - Dean's Honours List
- **Relevant Courses:** Digital Computation • Data Structures and Algorithms • Digital Systems

AWARDS

- University of Waterloo President's Distinction
- University of Waterloo Research Award
- University of Waterloo International Experience Award

INTERESTS

- Learning about various blockchain technologies
- Managing personal investments and finances
- Weightlifting and staying active