Justin Aujla
2A Computer Engineering – 4 Month Co-op

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SKILLS

Programming: Python, C#, TypeScript, C++, Java, VHDL, HTML, CSS
Frameworks & Libraries: .NET Core, Node.js, Karma, Jasmine, Blazor, NumPy
Tools & Databases: Git, Altium, LTSPICE, BASH, MATLAB, Azure DevOps, Postman, VirtualBox, Unix, MySQL
Interests: Painting, Graphic design, Video gaming, Yoga, Photography, Seinfeld

WORK EXPERIENCE

Teranet Inc. | Software Engineering Intern   Sept 2020 – Dec 2020
- Designed, and built unit testing infrastructure to replace manual testing using **TypeScript**, **Karma**, and **Jasmine**.
- Created scripts to sync shared assets between **AngularJS** and **Angular 10** web app to streamline tech stack transition using **C#**, **Python**, **BASH**, and **Git Hooks**.

VirtaMove | Software Engineering Intern   Jan 2020 – Apr 2020
- Lead the implementation of authentication and authorization in **.Net 3.1** for a server migration web app.
- Architected the end-to-end data collection, processing, and user interface generation pipeline for log data using **C#** and **HTML** with **Blazor** and **SignalR**; created on-the-fly log level control using **JavaScript**, and **SASS** user interface.

B.C. Technology for Learning Society | Hardware Technician   Jun 2019 – Sept 2019
- Refurbished 25+ personal computers (PC) and diagnosed 250+ pieces of PC hardware within a strict 3-week deadline; a fast-paced environment, working on up to 3 PCs at a time.

Catrobat | Open-Source Software Developer   Sept 2018 – Dec 2018

PROJECTS

Waterloop Hyperloop Team | Motor Control Lead   Sept 2020 – Present
Git, LTSPICE, Altium, PCBA, Oscilloscope, Multimeter
- Leading team of over 10 on a mission to develop a motor controller to demo a full-scale Hyperloop by 2025.
- Designed, simulated, and developed an isolated buck converter to power electromagnetic propulsion system in **LTSPICE** and **Altium Designer**; sourced components, assembled PCB, and tested board.

AskQ | nwHacks 2021   Jan 2021 – Jan 2021
JavaScript, NodeJS, WebSocket's, Google Cloud
- Created a real-time question platform to improve student-professor communication during live lectures using **WebSocket's**, **Google Cloud**, and a web dashboard to send and upvote questions.

Mr. Postman | Research paper in eSTEAMed academic journal   Dec 2018 – Apr 2019
Java, C++, Python, HTML, PHP, Apache 2, Firebase, Android Studio, Postman, BASH
- Spearheaded development the first IoT enabled biometric smart mailbox to mitigate mail theft using **Apache 2**, **Android studio**, **Arduino**, and **Raspberry Pi**'s.

EDUCATION

University of Waterloo   Sept 2019 – Apr 2024 (Expected)
Bachelor of Applied Science – Honours Computer Engineering, Co-Op