Justin Aujla

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// Experience

Teranet Inc. // Software Engineering Intern — Sept – Dec 2020

- Designed, and built unit testing infrastructure to replace neglected manual testing and improve code quality 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 – Apr 2020

- 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.
- Methodically and extensively completed 160+ manual test cases, spearheaded 3+ new test suites, and modified 15+ test cases to improve testing accuracy.
- Lead the implementation of authentication and authorization in **.Net 3.1** for a server migration web app to improve client security.

B.C. Tech for Learning Society // Hardware Technician — Jun – 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.

Waterloo Hyperloop Team // Motor Control Lead — Sept 2019 – Present

- Leading team of 10+ engineering students from various disciplines on a mission to develop a motor controller to demo a full-scale Hyperloop by 2025.
- Organizing an intercollegiate forum for the advancement of non-contact propulsion, guidance, and suspension systems.

Catrobat // **Open-Source** Software Developer — Sept – Dec 2018

// Projects

Hyperloop Isolated Buck Converter — Sept – Dec 2020

Git, LTSPICE, Altium Designer, PCBA, Oscilloscope

- Designed, simulated, and developed an isolated buck converter to power electromagnetic propulsion system in **LTSPICE** and **Altium**; sourced components, assembled PCB, and tested board.

Homemade Electric Longboard — Aug 2019– Present

System integration, Electrical and schematic design, Soldering

- Designed and manufactured a fully functional low-cost electric longboard using recyclable materials for communal use; mitigated environmental impact while providing fast and affordable transportation.

Mr. Postman — Dec 2018 – Apr 2019

Java, C++, Python, Apache 2, Firebase, 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.

// Skills

Languages

- TypeScript, HTML, and CSS
- C#, C++, and Java
- VHDL, Python and MATLAB

Frameworks

- Angular, Jasmine, and Node.js
- .NET Core, and Blazor

Tools

- Git, BASH, Unix, VirtualBox, Azure DevOps, and Postman
- Firebase and Google Analytics
- Altium, LTSPICE, and PSIM

// Achievements

Horatio Alger National Entrepreneurial Scholar // 2019

- Presented to 10 Canadian Students who exhibit exceptional academic success, desire and ability to be entrepreneurial, deep involvement in co-curricular and community service activities, and display integrity and perseverance in overcoming adversity.

Winner at nwHacks // 2019

- Chosen out of 130+ teams for the "Most Innovative Home Buying Experience" prize.

// Activities

Boys4Real // Program Leader

Jun 2014 – Present

- Inspired 200+ youth to appreciate themselves and live healthy; taught time management, conflict resolution, and community service.

Aujla Labs // Founder

Sept 2018 – Present

- Designing tech to make the world accessible for people of all abilities.

Free Geek // Volunteer

Jun 2016 – Present