Aidan Bowers

BASc Candidate,
Systems Design Engineering, 2024

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Summary of Qualifications

- Extensive programming experience in Node, Python, C++ and more developed over 4+ years
- Experience and comfort using Git, Linux, and the command line
- Keen and motivated learner with a focus on detail and accuracy
- Proven leadership abilities and collaborative teamwork skills
- Intrinsically motivated and dependable with a strong sense of initiative

Project Highlights

Galaxia | Nov. 2017 – Jan. 2018

- Designed and built 3D multiplanetary real time strategy game using the Unity Game Engine and C#
- Procedurally generated tiled, semi-spherical planets using Perlin noise on spherical projections, and implemented A* path finding algorithm on player characters to navigate said planets
- Implemented multiplayer mode, allowing players to play with friends over a network

The "RAV Project" | Sept. 2017 – Dec. 2018

- Designed, programmed, and constructed quad copter using Node.js, Fusion360 and 3D-printers
- Built web user interface to control quad copter using web sockets and a game pad
- Returned a non-functional Makerbot 3D printer to a reliable state through troubleshooting and repair
- Hosted software on Raspberry Pi running Raspbian Linux to control drone
- Researched components and created and presented funding pitch

Professional Experience

Software Testing, Engineer in Training (Co-op) | RouteThis | Jan. 2020 – April 2020

- Initiated and developed an iOS UI testing framework to perform unit tests and automated screenshot capture using the XCode cli, Bash, and Swift
- Performed testing of web, iOS and Android apps across multiple browsers and operating systems
- Actively engaged in a modified agile development model and sprint planning scrums using jira cloud

3D Printed Parts Model Maker | Agile Manufacturing | Feb. 2019 – Aug. 2019

- Post processed 3D printed models through part cleaning and QC
- Used CAD software to view, measure and inspect parts for QC and packaging
- Operated SLA 3D printers to maintain peak output

Teaching Assistant (Co-op) | Uxbridge Secondary School | Sept. 2018 – Jan. 2019

- Lectured high school Computer Science students on fundamentals of programming using PHP
- Facilitated extra help and 1 on 1 sessions to improve understanding of difficult concepts
- Serviced computers and resolved hardware and network technology-based problems for staff
- Led small group of students in research and purchase of parts for an extracurricular electronics (infrared laser tag) project using Arduino and 3D printers.

Awards & Interests

- Varsity Curling MVP, University of Waterloo (2020)
- University of Waterloo, Autonomous Robot Racing Design Team Member (2019-2020)
- Education Computing Organization of Ontario programming competition, Regional event winner (2018)
- Scouts Canada Chief's Scout Award (2015)
- Scouts Canada Award for Meritorious Conduct (2013)
- Multiple time Hackathon participant (2019-2020)
- Linux and desktop PC building