

Ryan Voigt

3A Mechatronics Engineering



ryanvoigt.github.io



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Languages: Javascript, Python, HTML, CSS, Objective-C, C#, Java, C++, Matlab

Tools: React, Javascript, jQuery, MongoDB, Unity3D, Git, Jenkins, Linux, Docker, PostgreSQL, Python

Education: 3.5 / 4.0 GPA | University of Waterloo, Candidate for BAsC, (Expected 2022)

Experience

Software Engineering | Herzberg Institute of Astrophysics

Penticton, BC | Jan 2020 - May 2020

- Implemented **Pulsar Search Timing** and **Correlation Beam Forming** algorithms using **Python** for processing input signals from an array of 500 telescopes.
- Demonstrated the ability to **work remotely** with a distributed team from **all over the world**.
- Developed **control systems** and **state machines** with Python to validate telescope configurations and initialize scans on a **TALON FPGA**.
- Development of Gitlab Runners for automated **continuous deployment** testing on developers provided **docker images** to maintain code quality of master branch.

Full-Stack Developer | RouteThis

Waterloo, ON | May 2019 - Sep 2019

- Increased user engagement by 30%** by implementing a configurable leaderboard page with automated usage tracking built with React and REST APIs.
- Increased test coverage to 100%** by refactoring code to use web-component architecture (React) and Jest for unit testing.
- Mitigated critical data exploit** by implementing a **configurable cryptographic hashing** login feature with Javascript & Bcrypt to force password resets and restrict old passwords.
- Developed a **network diagnostic app** on iOS and Android amassing **thousands of users**, utilizing the RouteThis SDK and REST APIs.

Software Engineering | Aterica Digital Health

Waterloo, ON | Sep 2018 - Jan 2019

- Overhauled the company QA process by **introducing issue documentation and testing standards**. This **increased QA team's efficiency by 70%** and on-boarding success by 200%.
- Eliminated the need to pay \$700 annually for wildcard SSL certificates** using an automated cron job, bash scripts and LetsEncrypt for certificate generation and deployment.
- Utilized **PostgreSQL** to populate and query tables to diagnose Bluetooth connectivity issues.

Projects



Spotify WebApp

Displays statistics based on lifetime Spotify usage, and enables you quickly generate queues based on current listening habits and favourite songs.

Developed using: **Node.js**, **Javascript**, **Spotify API**, **jQuery**, **Heroku Cloud**



Amazon Cruncher

Uses Amazons item history CSV to generates a report to help visualize your spending patterns, yearly expenses, and preferred shopping categories all within a web browser.

Developed using: **Javascript**, **jQuery**



Frontier

Battle royale first-person shooter game with multiple maps and game modes, 4 character classes with special equipment, and multiplayer capability.

Developed using: **Unity3D**, **C#**, **Photon**