

Joshua Calder

Education

Bachelor of Science, Computer Science (Software Engineering Option) *Sept 2015 — Apr 2019*
University of Victoria — Victoria, B.C.

Technical Skills

Programming Languages

- Python, Java, C, PHP, JavaScript (w/ CSS, HTML), SQL

Technologies

- Git, Django, ReactJS, Flask, PostgreSQL, MongoDB, Play, Spring MVC, Linux, Nginx, Docker

Experience

Aptean

Kelowna, B.C.

Software Engineer Intern

June 2017 — Dec 2017

- Main contributor for a major update release of education management software that involved over 70 bug fixes and new features
- Designed, developed and tested a custom spam-prevention email authentication system using PHP and MySQL
- Participated in daily Scrum meetings and presented new features and bug fixes in weekly Sprint demos
- Accepted a 4-month extension to work with the recreation management software team to implement new facility management booking features
- Wrote, tested and executed SQL scripts to fix inconsistent production data
- Worked on two different technology stacks, one involving PHP & MySQL, the other involving Scala & PostgreSQL

University of Victoria, Music Department

Victoria, B.C.

Recording Technician

Sept 2016 — Apr 2017

- Responsible for recording faculty, student and guest artist concerts
- Set up live streams to broadcast concerts on the University's website

PG Music

Victoria, B.C.

Developer

Sept 2015 — May 2016

- Debugged incorrect MIDI data representations of instrumental audio recordings
- Ensured musical notation was accurately displayed inside musical accompaniment software Band-In-A-Box

Projects

Fretgym.com — Django, Flask, PostgreSQL, JavaScript

May 2018 — Present

- Developed and deployed a web app that generates custom guitar practice routines based on a user's practice preferences
- Featured on ProductHunt.com, currently has over 1000 monthly users
- Streamlined production deployment using git and Gulp.js to automate various build tasks and production pushes

jimi — Django, MongoDB, ReactJS

Feb 2019

- Collaborated in a small team to create a location-based collaborative music playlist generator for UBC's NWHacks 2019
- Integrated the Spotify API to authenticate user's accounts and query their recent listening activity

Lyra — Python, NLTK (Natural Language Toolkit)

Jan 2019 — April 2019

- Developed a natural language lyric generator using constrained Markov chains under the direct supervision of a University of Victoria professor
- Wrote a script that queries the genius.com lyric API to collect large amounts of training data

WikiWikiWikipedia — JavaScript, CSS, HTML

March 2018

- Worked in a small team to develop an open-source Chrome extension that plays relevant audio while browsing Wikipedia. Created for the HackUVic programming competition
- Integrated YouTube API to query audio based on scraped Wikipedia HTML data

UVic Aero Club — Python, MongoDB, ReactJS

August 2018 — April 2019

- Worked on the Aero Software team to improve and develop new features for the drone's ground-station receiver and the inflight user interface
- Implemented a method of wirelessly transmitting image data from the drone's onboard Raspberry Pi to the ground-station receiver

Battlesnake 2016, 2017 & 2018 — Python

March 2016, 2017 & 2018

- Worked in a team to develop the logic of a snake AI that competes against others in a multiplayer version of the Snake arcade game. Achieved semi-finals