

## **Skills**

Languages: C/C++, Java, Python, JavaScript, LabVIEW, Octave, LATEX, HTML, QML, CSS

Technologies: Qt, Android SDK, Django, Tornado, NodeJS, PostgreSQL, MongoDB, AngularJS, JQuery

Services: AWS, Github, Perforce, [Google, Facebook, SoundCloud, Echo Nest] API

Tools: Git, Sublime, Android Studio, XCode, Visual Studio, Vim, Bash, Fish Shell, MacOSX, Ubuntu

# **Experience**

Sony Creative Software Waterloo

Software Engineer

2015

Worked on Sony Catalyst series of applications for professional video preparation and editing with developers around the world

- Developed APIs for UI components such as context menus used in all three Catalyst applications
- Implemented and debugged a feature which detects and corrects flash bands in media
- Worked with and debugged a large and complex code base shared between multiple applications
- **Tools:** C/C++, Qt Framework, QML and Javascript

CrowdSponsor Waterloo

Co-Founder and Lead Backend Developer

2015-present

Crowdsourcing website with focus on supporting startups and promoting brand awareness

- Implemented campaign analytics that aggregates data gathered from Facebook and Google APIs about page visitors and voters
- o Developed user registration using Facebook Login as well as single sign-on comment threads with Disqus
- Designed the database schema and wrote automated tests for the server code
- Tools: Python, Django, PostgreSQL, Facebook Graph API, Google Geolocation and Analytics API, AWS EC2, and Ubuntu

# **Personal Projects**

### **GlassBoard** | Hack the North 2015

Repository (7

Augmented reality Google cardboard application that allows users to interact with visual overlays

- Implemented face and point detection using OpenCV as well as messaging using the Twilio API
- Created with NodeJS, Socket.io, WebGL, HTML5 canvas, OpenCV and Twilio API

### **Sunami Music Player** | Google Play Store

Repository (7)

Android application that plays music based on your current preferred genre and song playback history

- Implemented smart suggestion system for music using a graph of genres generated with the Echo Nest API
- Architected the application using asynchronous methods resulting in a smooth UX
- Added online music search and streaming using the SoundCloud API

# Chordi.co | PennApps XII

Repository (7)

Procedural music, taught with data from real artists

- Implemented music generation using a feedforward neural network with a training set of chord progressions from popular songs
- Created with Python, Flask and PyBrain

# LANParty | UWaterloo EngHack Spring 2015

Repository 🗘

Play music from your library on someone else's phone over wifi

Implemented mobile server that allows for music streaming between Android devices over wifi

## **IntoxicM8** | AngelHack Toronto 2015

Repository (7)

Android application that detects when you are intoxicated and helps you get home safely

- Developed a web service that uses a support vector machine to determine if a person is intoxicated based on multiple factors
- Created with Python, Tornado, MongoDB, Google Roads and Maps API

# **Education**

## **University of Waterloo**

Waterloo

Candidate for Bachelor of Software Engineering, GPA 4.0/4.0

2014-2019

Engineering and Mathematics Dean's Honours List for 1A and 1B terms