

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
- 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 🗘

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 ?

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