

# Wojtek Swiderski | Software Engineering - UWaterloo

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## Skills

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**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

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### 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

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### GlassBoard | Hack the North 2015

Repository 📄

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 📄

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

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### 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