

# Alex Petrovich

3A Honours Geomatics | University of Waterloo ID#20566458

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GitHub

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## Summary of Qualifications

- Enthusiastic software developer comfortable in fast-paced workplaces, as exemplified at Freckle IoT
- Excellent performance in group environments learned while collaborating on software projects

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## Technical Skills

### Programming Languages:

Python, Go, JavaScript, C, Assembly, SQL

### Technologies:

Bash, Git, Elasticsearch, PostgreSQL

### Tools:

GitHub, JIRA, Bitbucket, Jenkins, IntelliJ, GIS

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## Experience

### Freckle IoT

Quality Engineering

*September 2016 – December 2016*

- Designed and developed a client-facing API in Go, halving our business partners' integration time
- Wrote Python scripts to perform fast geohash lookups, giving valuable insight to our sales team
- Expanded Freckle's data processing in Python, creating analysis reports using Elasticsearch queries
- Optimized JavaScript code of internal admin website, reducing load times by up to 80%
- Created the company's SQL schema in Amazon Redshift, allowing for a quick database migration
- Built automated web and API testing programs using Python and Behave

### Statistics Canada

Geographic Edit Analyst

*January 2016 – April 2016*

- Developed Python scripts to request, parse, and store geocoding results from Google API
- Performed regression and black box testing of Statistics Canada's internal geographic software, ensuring its successful use in 2016 Census

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## Projects

### Fightbros

*December 2016 – Present*

Actively contributing to the development of a web browser fighting game

- Created character trails and other server-controlled visual objects
- Found and solved numerous bugs in JavaScript client and NodeJS server codebases

### Smartwatch Controlled Skateboard

*WearHacks 2015*

Controlled a motorized skateboard with a Pebble Smartwatch using an Android app and two microcontrollers

- Developed a Pebble app in C language to relay button presses to an Android phone via Bluetooth
- Wrote an Arduino program to control an electric motor mounted to a skateboard
- Solved technical issues and created workarounds while under a strict time limit

### League of Legends Ping Analyzer

*January 2017*

Python program that advises when not to play video games, based on server connection latency

- Used MongoDB for data storage and to enable analysis over large time periods

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## Education

### Candidate for Bachelor of Environmental Studies

Honours Geomatics with Computer Science Minor  
University of Waterloo  
*September 2014 – Present*