

# Ernest Wong

☎ (416) 897-0922 | ✉ e56wong@uwaterloo.ca | 🏠 http://ernest-wong.me | 📱 ernestwong | 🌐 ewong222

## Skills

|                                   |  |
|-----------------------------------|--|
| <b>Programming</b>                | Ruby, Python, Java, Scala, JavaScript, C/C++, Bash, SQL, HTML/CSS, LaTeX |
| <b>Tools</b>                      | Git, Linux, Android, Vim, tmux   |
| <b>Frameworks &amp; Libraries</b> | Ruby on Rails, BackboneJS, AngularJS, Django, Node.js, Tesseract, OpenCV |
| <b>Data</b>                       | MySQL, Cassandra, PostgreSQL   |

## Experience

### PagerDuty

San Francisco, CA

SOFTWARE ENGINEERING INTERN

May 2016 - August 2016

- Developed new core recruitment feature on PagerDuty's platform across the web and mobile stack.
- Maintained highly available Scala services powering the core portions of PagerDuty's notification service.
- Implemented metrics for critical service to improve visibility and allow engineers to quickly identify issues with the service.
- Involved with product & design decisions and participated in high customer impacting discussions.

### Inkling

San Francisco, CA

SOFTWARE ENGINEERING INTERN

September 2015 - December 2015

- Developed core Python API service, consumed across all Inkling products.
- Built Inkling's Backbone digital content reader app with Django middleware.
- Implemented key features in Inkling cross-title library search functionality.
- Improved digital content reader's custom smart word-highlighting algorithm to greatly improve user experience.

### Boltmade

Waterloo, ON

FULL STACK DEVELOPER INTERN

January 2015 - April 2015

- Built multiple entire web applications with Ruby on Rails and AngularJS that were shipped to production.
- Developed both large scale applications and small-scale web applications from ground-up.
- Contributed to weekly sprint planning meetings with clients and discussed design implementations.

## Projects

### Sudoku Puzzle OCR Cam Solver | Sudoku Solver

[HTTP://GITHUB.COM/ERNESTWONG/SUDOKUSOLVER](http://github.com/ErnestWong/SudokuSolver)

- Android application which takes picture of Sudoku puzzle and provides solution.
- Uses OpenCV computer vision library and image processing to identify puzzle and Tesseract OCR to identify numbers.
- Customized image processing algorithms—used a combination of OpenCV functions and custom algorithms.

### Social Media Platform Web Application | Connectd

[HTTP://GITHUB.COM/ERNESTWONG/CONNECTD](http://github.com/ErnestWong/Connectd)

- Ruby on Rails mobile web application that allows user to search for other users and send invitations on all major social media platforms with a single button.
- Used OAuth authorization system for user authentication.
- Used social media API services (Facebook, Twitter, G+, LinkedIn) to send invitations to users.

### An IoT hack with Muse headband | MuseDreams

[HTTP://GITHUB.COM/ERNESTWONG/MUSEDREAMS](http://github.com/ErnestWong/MuseDreams)

- Hardware hack using Muse headband that detects when user is about to fall asleep and makes adjustments to external surroundings.
- Analyzed EEG data and developed algorithm that recognizes user's sleepiness using state machine.
- Python server which interprets EEG data and posts state to Rails API for Android application.

### Project Euler | A collection of logic/coding puzzles

[HTTP://GITHUB.COM/ERNESTWONG/PROJECTEULER](http://github.com/ErnestWong/ProjectEuler)

- Solutions to 40-50 math problems found on <http://projecteuler.net>. Solutions written in C, C++, C#, and Java

## Education

### University of Waterloo

Waterloo, ON

COMPUTER ENGINEERING

2013 - 2018

- Operating Systems, Compilers, Computer Networks, Database Systems, Algorithms & Data Structures