# Ernest Wong

http://ernest-wong.me e56wong@uwaterloo.ca

#### PROGRAMMING

Python • JavaScript Java • Ruby C/C++ • C# HTML/CSS • SQL

# **TECHNOLOGIES**

git • vim • bash OS X • linux openCV • tesseract

# SOFTWARE PRACTICES

agile • pair-programming scrum • TDD • MVC

# **EDUCATION**

#### **UNIVERSITY OF WATERLOO**

Computer Engineering 2013 - 2018 | Waterloo, ON

# CONTACT

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#### **EXPERIENCE**

#### **PAGERDUTY** | Software Engineering Intern

May 2016 - Present | San Francisco, CA

- Developing new recruitment feature on PagerDuty's main application across the web and mobile stack.
- Maintaining highly available micro-services powering the core portions of PagerDuty's notification service.

### **INKLING** | Software Engineering Intern

Aug 2015 - December 2015 | San Francisco, CA

- 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** | Full Stack Developer

Jan 2015 - May 2015 | Waterloo, ON

- 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**

# **SUDOKUSOLVER** | Sudoku Puzzle OCR Cam Solver

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.

#### MUSEDREAMS | An IoT hack with Muse headband

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

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