

# Wojtek Swiderski

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## Skills

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**Languages** Python, C/C++, Java, Golang, JavaScript (ES6), Scala

**Technologies** Flask, Tornado, Thrift, MySQL, PostgreSQL, Redshift, HBase, Spark, scikit-learn, Tensorflow, OpenCV, React, Redux

**Tools** Unix, Bash, Git, Vim, IntelliJ, Sublime Text

## Experience

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### Oscar Health

New York, New York

SOFTWARE ENGINEERING INTERN

May - August 2017

- Working on improving the relevancy of doctor search using learning to rank methods
- Designed framework for labeling datasets to be used in training and evaluation of machine learning models
- Built ranking comparison tool in React and Redux used by different teams to decide on which ranking strategies to deploy
- Developed service that approximates travel time from member to doctor using Google's S2 library

### Quora

Mountain View, California

SOFTWARE ENGINEERING INTERN

August - December 2016

- Launched machine learning model for related questions ranking that **increased signups by 5.5%**
- Ran A/B tests to measure the online performance of related questions ranking models (mainly ensembles of trees)
- Decreased training time **from 3 hours to 5 minutes** by parallelizing extraction of natural language features such as Word2Vec and TFIDF similarities and historical features such as question covisits
- Refactored caching layer for related questions resulting in **90% less lines of code** and removal of a deprecated caching abstraction

### Uber

San Francisco, California

SOFTWARE ENGINEERING INTERN - UBER FOR BUSINESS

January - April 2016

- Individually built three language agnostic services responsible for centralized payments using Python/Tornado and Thrift
- Deployed the services multiple times per day to Uber's cloud where they could be scaled to serve **millions of users globally**
- Architected payment transaction service used to route transactions to data centers in accordance with international data privacy laws
- Migrated payment account metadata from PostgreSQL to Schemaless (Uber's wide column datastore); sharded data and built indices to **allow for constant time queries**

### Sony Creative Software

Waterloo, Ontario

SOFTWARE ENGINEERING INTERN

May - August 2015

- Build features for Sony Catalyst series of three cross-platform applications for professional video preparation and editing
- Developed APIs for UI components** such as context menus used by all three applications; built with C++ and the Qt Framework
- Designed and implemented a cross-platform framework for handling mouse and key system events

## Personal Projects

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### Glacier

- Distributed blockchain wide column database on top of RethinkDB with features like permission control and changefeeds

### Various Machine Learning Projects

- Experimented with applying semi-supervised learning to whitebalance illuminant estimation (**undergraduate research assistant**)
- Used Caffe to implement a *human pose estimator* using a pre-trained convolutional neural network from a *paper by Shih-En Wei*
- Implemented a *machine learning library* including algorithms from Andrew Ng's Coursera course in C++

### Sunami Music Player

GOOGLE PLAY STORE

- Android music player that offers smart song suggestions from your local library using a genre graph and historical user data

## Education

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### University of Waterloo

Waterloo, Ontario

CANDIDATE FOR BACHELOR OF SOFTWARE ENGINEERING

2014 - 2019

- Engineering and Mathematics Dean's Honours List (93.5% Cumulative Average)
- First in Class Engineering Scholarship