

# David Zhang

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## Skills

Languages **Python, Swift, Java**, Scala, C++, Objective-C, Javascript  
Frameworks Airflow, Google Cloud, Cocoa Touch, Android, React Native  
Databases MySQL, PostgreSQL, MariaDB, Cassandra  
Tools Git, Xcode, IntelliJ, Docker, AWS, Android Studio

## Education

### University of Waterloo

Sep 2013 - Apr 2018

**Candidate for Bachelor of Software Engineering**

## Work Experience

### Data Engineering Intern Snapchat

Sep 2017 - Present

#### Venice, California

- Building new daily metrics aggregation engine that runs on a Spark cluster
- Implemented GCS data sourcing for multi-staged aggregation jobs
- Benchmarked performance with wide vs. long intermediate tables
- Added Airflow DAGs to generate reporting for A/B testing metrics

### Mobile Engineering Intern Snapchat

Jan 2017 - Apr 2017

#### Venice, California

- Implemented end-to-end notification settings for Snap Ads Portal
- Built and improved client-side ad search through extensive caching
- Added instrumentation to track network latency and daily active users
- Migrated UI in Snap Ads Portal to the latest look and feel
- Improved memory and CPU usage for both mobile clients

### iOS Engineering Intern FiveStars

May 2016 - Aug 2016

#### San Francisco, California

- Delivered revamped Explore View using Auto-Layout and RestKit
- Increased active users by 15% through Branch deep linking
- Integrated Twilio to support merchant-consumer conversations
- Designed caching manager to reduce network overhead by 50%
- Identified hotspots and improved launch performance by 40%

### Fullstack Engineering Intern OANDA

Sep 2015 - Dec 2015

#### Toronto, Ontario

- Developed asynchronous flow to reduce registration time by 20%
- Built custom web dashboards to monitor sprint pipeline quality
- Reduced onboarding time by 80% through Vagrant setup
- Designed new mobile registration portal at OANDA Hackathon

## Work Experience

### Python Engineering Intern Eventmobi

Jan 2015 - Apr 2015

#### Toronto, Ontario

- Built service and endpoints for Flask-based RESTful API
- Implemented prototype RabbitMQ-based asynchronous web API
- Retired legacy content manager and migrated critical business logic
- Resolved full-stack issues in web and mobile clients

### SIEM Engineering Intern Trustwave

May 2014 - Aug 2014

#### Cambridge, Ontario

- Developed Kafka-based distributed messaging tool for SIEM NG
- Researched migration feasibility from MySQL to MariaDB/Cassandra
- Benchmarked read/write performance of MariaDB storage engines

## Projects

### Share-n-Tell

Ongoing

#### Fourth Year Design Project

- Lead developer of React Native application for tool-sharing platform
- Continuous non-profit partnership with Sharing Depot and MyTurn

### Spycodes

Ongoing

[itunes.apple.com/us/app/spycodes/id1141711201](https://itunes.apple.com/us/app/spycodes/id1141711201)

- Implemented iOS peer-to-peer multiplayer word association game
- Iterative, incremental development to support new features
- 5K+ global downloads with internationalization support for China

### Snapshop

Jan 2016

[devpost.com/software/snapshop-q9y1pu](https://devpost.com/software/snapshop-q9y1pu)

- Implemented self-checkout iOS shopping app
- Used Firebase for product lookup, Braintree API for payments
- Submission for DeltaHacks 2016, an MLH-sponsored hackathon

### Off The Grid

Nov 2015

[devpost.com/software/off-the-grid-lhgj8q](https://devpost.com/software/off-the-grid-lhgj8q)

**Finalist**

- Built offline, real-time canvas collaboration iOS multi-peer app
- Top 6 finalist at Hack Western 2015, an MLH-sponsored hackathon

### Scarecrow

Nov 2015

[instructables.com/id/Scarecrow-Intel-IOT/](https://instructables.com/id/Scarecrow-Intel-IOT/)

**2nd Place**

- IOT security system integrating Intel Edison and Touch-ID based iOS app
- Powered by Node JS and Python servers
- 2nd place at Intel IOT Roadshow 2015