

# Andrew Liang

Software Developer

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## Skills

### Languages

Python, JavaScript, Bash,  
C/C++, Scala, Java, SQL

### Technologies

Git, UNIX, React, Redux,  
Node.js, Jenkins CI,  
Azkaban, BigQuery, Flask,  
Elasticsearch, Grafana,  
Hadoop, Akka, MySQL

## Education

### University of Waterloo

Bachelor of Software  
Engineering, 2015 - 2020

## Awards

### President's Scholarship of Distinction

*University of Waterloo*  
Awarded to students with  
an entry average of at  
least 95%

## Interests

Hackathons, acoustic  
guitar, ultimate frisbee,  
barbering

## Experience



### Software Engineering Intern

Paytm Labs • Product Personalization

*May 2016 - Aug 2016*

*Toronto, ON*

- Patched data processing pipelines in **Python, Scala** to ensure **seamless availability** of data
- Built **Node.js** web app with **React, Redux** to visualize product recommendation metadata
- Created tool in **Python, Bash** to concurrently execute N data processing flows, cutting developer time needed to pay tech debt by **90%**
- Wrote automated, fault-tolerant scripts with **Python, Bash** to **eliminate all downtime** during deployment for real-time apps
- Developed **Grafana** data dashboard using **Lucene** to visualize business and traffic metrics
- Refactored **Scala, Akka** code to **decrease latency** for real-time API serving **100M** users
- Validated data sanity with **spark-shell** and **SQL** via **BigQuery**
- Interfaced with **Azkaban, Jenkins, HDFS, Elasticsearch** through **agile** development cycle

## Projects

### alexandria – Python, Flask, MySQL

*Hack the North, September 2016*

SMS-based, wifi-independent subscription service for reading public domain books on a phone. Built core API modules and data processing scripts for raw data ingestion and data seeding.

### murmur – Scala, Akka

*August 2016 – September 2016*

WIP message-driven, actor-based group chat via the command line. Uses **akka-actor** for concurrency, scalability and **akka-stream** for message processing. Handles client messages with a WebSocket server.

### Glide – Java, Android SDK

*July 2015 – January 2016*

Glider simulator for Android. Designed and implemented custom movement algorithms and practiced proper OOP principles. Published on the **Google Play Store**, achieving a **4.8** rating, with **1000** downloads.

### C60 – JavaScript, Firebase

*Hack the North, September 2015*

Real-time Pebble smartwatch networking app which enables users to exchange contact details with nearby users. Simulates the effects of NFC.