



# Andrew Liang

## Software Developer

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## Experience

### NVIDIA • Distributed Storage Engineering

May - Aug. 2018

Santa Clara, CA

- Developed **multi-level cache architecture** support for DFC: a distributed, persistent object cache in **Go**
- Invented **petabyte-scale** dataset sorting framework for DFC: [bit.ly/2yeYxOc](https://bit.ly/2yeYxOc)
- Implemented dynamic **keepalive scheduler** based on TCP's RTO (RFC 6298)
- Benchmarked and integrated **h2c** protocol for DFC data and control planes
- Optimized for performance bottlenecks at scale using system profiling tools such as **pprof**, **go-torch**, **tcpdump**

### Taplytics • Backend Engineering

Sept. - Dec. 2017

Toronto, ON

- Built a highly-performant user push notification pipeline with **GCP** and **Node.js**
- Created real-time webpage element classifier in **JavaScript** for A/B test suggestions
- Added RESTful HTTP APIs in **Node.js** to support data model backed in **MongoDB**

### Wattpad • Platform Engineering

Jan. - Apr. 2017

Toronto, ON

- Built an open-source client library in **Go** for interfacing with third-party ad-serving API
- Leveraged **circuit breaker** design pattern in **Go** to harden web microservices
- Implemented search-related APIs to in **Go**, **PHP** to support new ad requirements

### Paytm Labs • Data Engineering

May - Aug. 2016

Toronto, ON

- Patched data pipelines in **Python**, **Scala** to support new data ingestion requirements
- Wrote daily indexing flow to write 30M documents from **Elasticsearch** to **HDFS**

## Interests

- Open-source software
- Storage systems
- Distributed computing
- Barbering

## Skills

### Languages

Go	C++	Bash
Python	JavaScript	SQL

### Technologies

Git	AWS	MySQL
Unix	GCP	MongoDB

### Concepts

Distributed Systems  
Concurrency and Parallelism  
Scalable Web Architecture

## Projects

### go-adzerk – Go, Adzerk

HTTP client library in **Go** for interfacing with Adzerk's API

### wattpoll – Go, MySQL

Microservice built with **Go** and **MySQL** which supports interactive polls on Wattpad

## Education

### University of Waterloo

Bachelor of Software  
Engineering, 2020