

Andrew Liang

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Experience

Databricks • Software Engineer Intern

Jan - Apr. 2019

San Francisco, CA

- Added features to custom **Spark** runtime to support team verticals in resource management, security, and library management
- Architected mechanism for Databricks control plane to consume arbitrary event messages from highly-distributed **Spark** clusters in the data plane using **Scala**
- Contributed to development of **instance pools**: user-facing caches for cloud instances used to reduce **Spark** cluster creation time by **90%**

NVIDIA • Distributed Storage Engineer Intern

May - Aug. 2018

Santa Clara, CA

- Contributed to core development of **AIStore**, a distributed storage system for AI in **Go**
- Invented a **petabyte-scale** distributed object sorting layer within AIStore: bit.ly/2yeYxOc
- Implemented dynamic node **keepalive scheduler** based on TCP's RTO (RFC 6298)
- Evaluated performance bottlenecks at scale using **pprof**, **go-torch**, **tcpdump**

Taplytics • Backend Engineer Intern

Sept. - Dec. 2017

Toronto, ON

- Created distributed push notification pipeline with **Cloud Pub/Sub** and **Cloud Functions**
- Built real-time webpage element classifier in **JavaScript** for A/B test recommendations
- Added RESTful HTTP APIs in **Node.js** to support data models backed in **MongoDB**

Wattpad • Platform Engineer Intern

Jan. - Apr. 2017

Toronto, ON

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

Paytm Labs • Data Engineer Intern

May - Aug. 2016

Toronto, ON

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

Skills

Languages

Go	Python	Java
Scala	C++	SQL

Technologies

Git	AWS	K8s
Linux	GCP	Bazel
Spark	Docker	Jenkins

Projects

go-adzerk

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

wattpoll

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

Interests

Distributed computing
Scalable web architecture
Big data systems
Computer security

Education

University of Waterloo

Bachelor of Software Engineering, 2015 - 2020