

# Ryan Jiang

[ryan-qiyu-jiang.github.io](https://ryan-qiyu-jiang.github.io) | [ryan.qiyu.jiang@gmail.com](mailto:ryan.qiyu.jiang@gmail.com)

## Experience

### Amazon

SDE Intern

Seattle, WA  
May - August 2019

*Technologies used: C++, Tensorflow, Python, Node, Serverless, DynamoDB*

- Enabled universal product autocrop by developing latency optimized object detection, experimentation in Python, inference run directly by image processing servers in C++
- Raised the bar on app quality by implementing app deployment gating for internal app hosting platform, with serverless lambdas, SNS pubsub, and DynamoDB
- Developed app deprecation that preserves deployment history with edge-lambdas and SWF workflows

### Petuum

Software Engineering Intern

Pittsburgh, PA  
May - August 2018

*Technologies used: Docker, Kubernetes, JS, Node, Python, Go*

- Implemented distributed GraphQL message-broker with Node and Redis cluster
- Scaled distributed ML platform and sped up client and dev access by enabling PetuumOS instances to run on cluster partitions instead of requiring whole clusters
- Developed data visualization UI module with 5x speed up using caching
- Cloud migration of web services and kubernetes helm-chart integration

### Lokafy

Software Development Intern

Toronto, ON  
June - August 2016

*Technologies used: Docker, JS, Python, MySQL*

- Rewrote front-end as reactive Angular SPA
- Implemented RESTful APIs with Django/Python and MySQL

## Skills

**Proficient:** C/C++, Python, Tensorflow, Go

**Familiar:** Docker, Node.js, Spark/Hadoop, Kubernetes

## Projects

[Cassiopeia](#): Go, Distributed Systems

- Distributed hash-table based off Cassandra, with pieces of Kademlia and other systems
- Tunable consistency, fault-tolerant, elastic
- Import in your own Go programs and try it out!

[Strata Distributed Collaborative Filtering](#): Python, Spark

- Distributed matrix factorization using strata optimization inspired by IBM paper
- 70% faster than iterative parameter-mixing on three nodes over movielens dataset

## Education

University of Waterloo

Candidate for Bachelor of Computer Science

2017 - May 2022

## Achievements

**Open Source Contributor:** Tensorflow, Keras

**Canadian Computing Olympiads (2017):** CCO Bronze, CCC Top 20

Python  
C/C++