

Ryan Jiang

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Experience

Bloomberg

Software Engineering Intern

New York, NY
January - May 2020

Python, Java, Spark, Airflow

- Researched and developed recommendation systems for personalized news
- Implemented new recommender at scale resulting in a lift in clickthrough-rate over existing recommenders
- Developed collaborative user embeddings for real-time recommendations
- Implemented content-based user and article embeddings for real-time recommendations

Amazon

Software Engineering Intern

Seattle, WA
May - August 2019

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

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

Skills

Proficient: C/C++, Python, Tensorflow, R, 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