

Zoe Tian

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WORK EXPERIENCE

Dropbox

Vancouver, BC

Infrastructure Software Engineer (Search Retrieval & ML team)

March 2022 - March 2024

- Designed and implemented Daggoo: a 1.5-year project that transform query serving paths into a DAG structure in Golang
- Reduced P95 Search latency by 200ms through the application and deployment of Daggoo
- Set up experiments to safely verify the latency gain in each DAG-ified components with live shadow traffic
- Created a visualization tool in D3.js for debugging and troubleshooting DAG execution latency
- Repeatedly analyzed critical path with Hive and DAG logs, modified framework and call paths accordingly, until hitting latency goal
- Improved paid enterprise user experience by fixing bugs in search with the eastern locales, and search by tags in Japanese during on-call rotations

VMware

Toronto, ON

Software Engineer II (Concourse CI team)

June 2019 - March, 2022

- Maintained and developed new features for Concourse CI in Golang and Elm followed strict TDD and Agile
- Scaled up the previous backend authentication flow for super admin users with large pipelines
- Re-wrote dashboard endpoints in Elm and improved the performance by 50% when loading complex responses
- Worked in a multi-cloud environment with AWS, GCP, VSphere; developed with Docker, Kubernetes, Terraform
- Onboarded two new members onto the team, mentored junior engineers, and facilitate internal meetings

BitTitan

Bellevue, WA

Software Design Engineer Intern

May 2018 - Aug 2018

- Investigated and redesigned the backend for a multi-threaded mail migration service to run with docker containers on Azure in docker swarm mode
- Implemented a working swarm network prototype with the modified scheduler to assign the incoming migration jobs to swarm manager nodes on Azure in C#

Paperless Post

New York, NY

Full Stack Developer Intern (Discovery team)

May 2017 - Aug 2017

- Contributed significantly to new mobile web production using React/ Redux, RxJS, Flow; and Ruby on Rails backend
- Worked on A/B testing and the integration with Mixpanel to track user behaviours for data scientists
- Crafted robust React components consistent with UI guidelines and stored in self-made Storybook-like UI library

EDUCATION

University of Waterloo

Waterloo, ON

Bachelor of Computer Science, Minor in C&O

2015 - 2019

SKILLS

- Programming Language: Golang, Python, Java and C++
- Web Development: JavaScript, React/ Redux, Node.js
- Cloud Development: Linux/Unix System, Docker, Kubernetes, Terraform

PROJECTS

Midi Melody

github.com/zoetian/midi_melody

YouTube Music Video Converter in Python

- Applied Youtube-dl library to convert random audio files into mp3
- Extract the melody from an audio file and convert it to MIDI notes
- Output piano keyboards canvas animation as learning tutorials with sheet script pdf

Docker Filter

github.com/zoetian/docker-filter

Tiny Image Processing Experiment

- Built a Serverless function to do style transfers with Docker, Openfaas, Tensorflow
- Supported 40+ different styles from Magenta's models