Zach (Zuqi) Li

Software Engineer | University of Waterloo

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EXPERIENCE

Microsoft | Software Engineer

Sept 2018 - Present (Prev. Sept 2017 - Dec 2017) | Redmond, WA
C#, Python, TypeScript, TensorFlow, MS Azure, ML.NET, LINQ

- Designed, trained, and integrated a new **autosuggest ranker** for the release of the Chromium-based Edge browser; metrics show **parity** against Chrome autosuggest
- Built and deployed an Azure microservice for serving non-prefix-match autosuggestions; handles **~2,500 QPS** per instance and has a 99th percentile latency of **~20 ms**
- Built an **n-gram** and a **recurrent neural network language model** to predict the next words of incomplete user queries
  - Integrated **next word prediction** into Bing's autosuggest pipeline to show relevant suggestions for uncommon queries; improved overall suggestion coverage by **~20%**
- Helped tune and improve the autosuggest relevance of Windows Search Box, Edge, and Bing.com through analyzing query patterns and experimentation

LinkedIn | Data Infrastructure Intern

Jan 2017 - Apr 2017 | Sunnyvale, CA
Java, Kafka, MySQL, Ambry

- Helped launch LinkedIn's **media infrastructure** for processing and serving media assets
- Designed, built, and released a distributed **end-to-end validation** and **performance testing** framework for the media processing infrastructure
  - Handles scheduling, traffic generation, metrics collection, data validation, and alerting
  - Used for failure monitoring, experimentation, and automating customizable tests

Yahoo! | Software Engineering Intern

May 2016 - Aug 2016 | Sunnyvale, CA
Node.js, React, Fluxible, MySQL, AWS

- Created and launched **Yahoo! View** *(view.yahoo.com)* as part of the web team; served **thousands** of TV shows and movies
- Built core React components, backend APIs, and integrated **Tumblr** content into Yahoo! View to show relevant official and fan posts
- Setup the entire backend integration testing infrastructure for Yahoo! View

PROJECTS

KaeSwap | Next.js, Apollo GraphQL, Flask, Postgres, AWS S3, Docker

Dec 2018 - Present

A platform for K-pop enthusiasts to trade and resale their albums/posters/merch; received **thousands** of pageviews and **hundreds** of concurrent active users during the KCON LA event

Discord Utility Bots | Node.js, Firebase, Discord API

Aug 2018 - Present

Chatbots that power **additional functionalities** on top of Discord servers: custom emoji/gif and sticker reactions, media sorting and archiving, lyrics/YouTube scraper, and logging

LUQL | Node.js, React-Native, MobX, Firebase

Jan 2017 - Sept 2017

A mobile platform for locals and tourists to post, discover, and book tours around their area

MelonWatch | C++, OpenGL, OpenAL

Aug 2017

A 3D OpenGL first-person shooter; built completely from scratch featuring dynamic shadow mapping, particle system, and physics engine

SKILLS

Languages

- JavaScript
- Python
- Java
- C#
- C++
- Scala
- HTML / CSS

Frameworks

- React / React Native
- Next.js
- Apollo GraphQL
- TensorFlow
- Redux
- MobX
- Express
- Flask
- Angular
- Sass / Less
- OpenGL
- Android SDK

Databases

- PostgreSQL
- MySQL
- MongoDB

Tools

- Spark
- AWS
- Node.js
- Microsoft Azure
- Docker
- Firebase
- Hadoop
- Jupyter
- Git

EDUCATION

University of Waterloo
Bachelor of Software Engineering
Sept 2013 – Apr 2018

INTERESTS

- Build apps
- Create music
- Catch pokémon