

# Zach (Zuqi) Li

Software Engineer | University of Waterloo

🌐 <https://zuqi.li>

📞 (206) 724 3286

✉ [lizuqiliang@gmail.com](mailto:lizuqiliang@gmail.com)

🐙 [github.com/zuqini](https://github.com/zuqini)

🌐 [linkedin.com/in/zuqili](https://www.linkedin.com/in/zuqili)

## 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** into 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 99.9th percentile latency of **15~ 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 **23%**
- Helped tune and improve the autosuggest relevance of Windows Search Box, Edge, and Bing.com through analyzing user patterns and experimentation

### LinkedIn | Data Infrastructure Intern

Jan 2017 - Apr 2017 | Sunnyvale, CA  
Java 8, 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 traffic generation, pipeline monitoring, metrics collection, and data validation
  - Used by media teams for experimentation, analyzing metrics, and failure monitoring

### Yahoo! | Software Engineering Intern

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



- Created and launched **Yahoo! View** ([view.yahoo.com](http://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 | Node.js, React, Redux, Firebase

Dec 2018 - Present

A platform for K-Pop enthusiasts to trade and resale albums and merch; had **thousands** of page views and **hundreds** of active users at KCON LA '19 during peak traffic

### K-Pop Discord Utility Bots | Node.js, Firebase, Discord API

Aug 2018 - Present

Discord chatbots that: sort media into respective channels; store GIFs into DB for reactions; and report daily K-Pop news scraped from various sites. Used by **multiple K-Pop servers**.

### 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#
- Scala
- C++
- C
- GraphQL
- HTML / CSS
- ARM Assembly

### Frameworks

- TensorFlow
- React / React Native
- Redux
- MobX
- Angular
- Express
- Less / Sass
- OpenGL
- Android SDK

### Databases

- MySQL
- PostgreSQL
- MongoDB

### Tools

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

## EDUCATION

### University of Waterloo

Bachelor of Software Engineering  
Sept. 2013 - April. 2018

## INTERESTS

- Build apps
- Create music
- Catch pokémon