

# Zach (Zuqi) Li

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## EXPERIENCE

### Microsoft | Software Engineer

Sept 2018 - Present ( Prev Sept 2017 - Dec 2017 ) | Redmond, WA

C#, Python, TypeScript, TensorFlow, ML.NET, LINQ



- Designed, trained, and integrated a new **autosuggest ranker** into the Chromium-based Edge browser; metrics show **parity** against Chrome autosuggest
- Built a new service for ranking and serving non-prefix-match autosuggestions; serves **2,500~ QPS per machine** 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 autosuggest to show relevant suggestions for uncommon queries; improved overall suggestion coverage by **23%**
- Helped tune and improve the autosuggest relevance of Windows Search Box, legacy 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

ES6, React, Fluxible, Node.js, 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 Utility Discord Bots | Node.js, Firebase, Discord API

Aug 2018 - Present

Discord bots that: sorts media into respective channels; stores GIFs into DB and reacts; and reports 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 FPS; built 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
- Kafka
- Node.js
- Firebase
- Git
- Maven
- Jupyter Notebook

## EDUCATION

### University of Waterloo

Bachelor of Software Engineering

Sept. 2013 – April. 2018

## INTERESTS

- Build apps
- Make music
- Catch pokémon