

Zach (Zuqi) Li

Software Engineer | University of Waterloo

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EXPERIENCE

Microsoft | Software Engineer

September 2017 - December 2017 | Redmond, WA

Python, C#, TensorFlow, LINQ, MS Cosmos (Internal Data Processing Platform)



- Built an **n-gram language model** using past Bing queries to predict the next words of incomplete user queries
- Integrated **next word prediction** into Bing's autosuggestion pipeline to show relevant suggestions for uncommon queries; improved overall suggestion coverage by **23%**
- Prototyped a **recurrent neural network language model** to further improve prediction relevance; model captures semantic relationships and long-term dependencies

LinkedIn | Data Infrastructure Engineer

January 2017 - April 2017 | Sunnyvale, CA

Java 8, Kafka, MySQL, Ambry



- Helped launch LinkedIn's **media processing** infrastructure for processing, managing, and serving digital media assets
- Designed, built, and released a distributed **end-to-end validation** and **performance testing** framework for the media processing infrastructure. Framework is:
 - Configurable with custom user logic and handles: traffic generation, pipeline monitoring, quality/latency metrics collection, and data validation
 - Used by media teams for performing experiments, analyzing key metrics, and monitoring for failures

Yahoo! | Software Engineer

May 2016 - August 2016 | Sunnyvale, CA

ES6, Perl, Node.js, React, Fluxible, MySQL, AWS



- Created and launched **Yahoo! View** (view.yahoo.com) within 7 weeks as part of the web team; built core UI components and API endpoints
- Optimized APIs and helped integrate AWS CloudSearch for improved performance; reduced avg response time to under **200ms** and increased max QPS capacity by **30x**
- Integrated **Tumblr** into Yahoo! View to provide official and fan posts related to shows
- Setup the entire backend integration testing infrastructure for Yahoo! View

PROJECTS

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

January 2017 - Present

A platform to help locals create and guide tours for travellers, tourists, and adventurers

MelonWatch | C++, OpenGL, OpenAL

August 2017

An OpenGL FPS; built the entire game engine from scratch featuring dynamic shadow mapping, a particle system, and a physics engine

Angora | Node.js, Angular, MongoDB, Jade/Pug, Less

January 2016

A platform where users explore various hairstyles and review local hairstylists

Terre | C++, Cocos2d-X

February 2015

A physics simulation sandbox for building star systems with dynamic lighting effects

SKILLS

Languages

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

Frameworks

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

Databases

- MySQL
- PostgreSQL
- MongoDB

Tools

- Spark
- Hadoop MapReduce
- Kafka
- Node.js
- Firebase
- Git
- Maven
- Webpack

EDUCATION

University of Waterloo

Bachelor of Software Engineering
Sept. 2013 – April. 2018

INTERESTS

- Build apps
- Make music
- Catch pokémon