

Zach (Zuqi) Li

4A Software Engineering | University of Waterloo

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EXPERIENCE

Software Engineering Intern | Microsoft

Fall 2017 | Redmond, WA
C#, MS Cosmos MapReduce



- Built the prototype **next word prediction** for predicting the most probable subsequent words given previous inputs using the N-Gram model
- Working on integrating the next word prediction into the main **Bing** search engine's autosuggestion pipeline
- Working on improving the next word prediction using a **Recurrent Neural Network** by learning the syntactic and semantic features of natural language

Data Infrastructure Intern | LinkedIn

Winter 2017 | Sunnyvale, CA
Java 8, Kafka, MySQL, Ambry



- Worked on and helped launch Vector - the **media processing** infrastructure for processing, managing, and serving digital media assets
- Independently designed, built, and released VectorValidation - a distributed **end-to-end validation** and **performance testing** framework for media processing
- VectorValidation generates traffic to the media infrastructure, monitors the pipeline, produces quality and latency metrics, and validates the processed data
- VectorValidation is used by multiple media teams for performing experiments, collecting key metrics, and monitoring for failures

Software Engineering Intern | Yahoo!

Spring 2016 | Sunnyvale, CA
Node.js, React, Fluxible, MySQL, ES6, Perl, AWS



- Created and launched **Yahoo! View** (view.yahoo.com) within 7 weeks as part of the web team; implemented various core business logic and UI components
- Optimized API endpoints and integrated AWS CloudSearch for improved performance; reduced avg response time to under **200ms** and increased max QPS capacity by **30x**
- Integrated **Tumblr** with 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, particle systems, and 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
- HTML / CSS
- Java
- C / C++
- Python
- Bash

Frameworks

- Node.js
- React / React Native
- Angular
- Express
- Mocha
- Fluxible
- MobX
- JQuery
- Kafka
- Less / Sass
- Android SDK
- Java Spring Framework

Databases

- MySQL
- PostgreSQL
- MongoDB

Tools

- Firebase
- Git
- SVN
- Maven
- Grunt
- Webpack
- Splunk

EDUCATION

University of Waterloo

Bachelor of Software Engineering
Sept. 2013 - April. 2018

INTERESTS

- Build apps
- Make music
- Catch pokémon