

# Zach (Zuqi) Li

4A Software Engineering | University of Waterloo

zuqi.li  
(613) 883 8365  
lizuqiliang@gmail.com  
github.com/zuqini  
linkedin.com/in/zuqili

## 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](http://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