Zach (Zuqi) Li

4B Software Engineering | University of Waterloo

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EXPERIENCE

Software Engineering Intern | Microsoft

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

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

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
- Designed, built, and released VectorValidation - a distributed **end-to-end validation** and **performance testing** framework for media processing. Framework is:
  - Configurable with custom user logic and handles traffic generation, pipeline monitoring/alerting, quality/latency metrics collection, and data validation
  - 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; built core UI components and API endpoints
- Optimized inefficient APIs 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, 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
- HTML / CSS
- Java
- C#
- C / C++
- Python
- Bash

Frameworks

- Node.js
- React / React Native
- TensorFlow
- Angular
- Express
- MobX
- Less / Sass
- OpenGL
- Android SDK
- Java Spring Framework

Databases

- MySQL
- PostgreSQL
- MongoDB

Tools

- Kafka
- 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