Zach (Zuqi) Li

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EXPERIENCE

Microsoft | Software Engineer II @Shop|Autosuggest Relevance
Sept 2018 - Present | Redmond, WA (Intern @ Sept 2017 - Dec 2017)
C#, Python, Scala, Spark, Azure, ML.NET, TensorFlow, Databricks, TypeScript
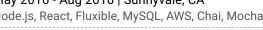
- Lead the **Shopping Newsletter** infrastructure to enable targeted personalized emails for user engagement; architected the entire data pipeline and worked closely with UX
- Created the core **Shopping Recommendations** service and designed the **infinite feed** workflow, serving personalized offers from multiple sources to all Microsoft apps
- Developed on **Bing for Commerce** to power intelligent autosuggest for retailers and **D365**
- Designed classifier to identify and suppress irrelevant Bing suggestions given context; achieved an F1-score of **0.91** and significantly reduced defect-rate
- Engineered service for providing non-prefix-match suggestions to en-US and international markets; expanded autosuggest coverage and serves **~1,600 QPS** per instance
- Developed server-side **autosuggest ranker** for the Chromium Edge browser using regression trees; side-by-side metrics showed comparable performance to Chrome
- Prototyped and productionized **n-gram**/**RNN** language models for next word prediction; increased autosuggest coverage by **~20%** and improved user engagement

LinkedIn | Data Infrastructure Intern @Media Infrastructure
Jan 2017 - Apr 2017 | Sunnyvale, CA
Java, Kafka, MySQL, Ambry

- Helped launch LinkedIn's **media infrastructure** for processing and serving all digital assets
- Designed and delivered a distributed **end-to-end validation**/**performance testing** platform
  - Supports traffic generation, metrics collection, data validation, scheduling, and alerting
  - Used for experimentation, failure monitoring, and automating customizable E2E tests

Yahoo! | Software Engineering Intern @Yahoo! View
May 2016 - Aug 2016 | Sunnyvale, CA
Node.js, React, Fluxible, MySQL, AWS, Chai, Mocha

- Created **Yahoo! View** as part of the web team; hosted **thousands** of TV shows and movies
- Implemented search functionalities into Yahoo! View using **AWS CloudSearch**, built interactive components and business logic, and set-up automated functional/unit tests
- Integrated **Tumblr** content into Yahoo! View to show relevant official and fan posts

PROJECTS

KaeSwap | **Website** | Next.js, Apollo GQL, Flask, Postgres, AWS S3, Docker   Dec 2018 - Jan 2021

A platform for fans to trade and resale their albums/posters/merch; received **thousands** of pageviews and **hundreds** of concurrent active users during the KCON LA event

LUQL | **iOS App** | 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 | **OpenGL Game** | C++, OpenGL, OpenAL   Aug 2017

A 3D first-person shooter built completely from scratch featuring dynamic shadow mapping, particle system, and physics engine

SKILLS

Languages
- Python
- Java
- C#
- C++
- JavaScript
- SQL
- Scala
- HTML / CSS

Frameworks
- Web
  - React
  - Apollo GraphQL
  - Express
  - Flask
  - Redux
  - MobX
  - Angular
- Data
  - Spark
  - ML.NET
  - TensorFlow
  - Hadoop
- Application
  - React Native
  - Unity
  - Android SDK
  - .NET
  - OpenGL

Databases
- PostgreSQL
- MySQL
- MongoDB

Tools
- Node.js
- AWS
- Microsoft Azure
- Firebase
- Docker
- Git / SVN
- Jupyter
- Vim

EDUCATION

University of Waterloo
Bachelor of Software Engineering
Sept 2013 – Apr 2018