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EXPERIENCE

Microsoft | Software Engineer II - Shopping/Autosuggest Relevance

Sept 2018 - Present (Intern @ Sept 2017 - Dec 2017) | Redmond, WA

C#, Python, Scala, Spark, Azure, ML.NET, TensorFlow, Databricks, TypeScript



- Created the unified **Shopping Recommendations** service for product recommendations on all Microsoft applications; simplifies workflows and enables faster iteration
- Developed on **Microsoft Bing for Commerce** services and data pipelines to provide intelligent autosuggest for **Dynamics 365 Commerce** and large-scale retailers
- Designed a classifier for suppressing suggestions given context and achieved an F1-score of **0.91**; significantly improved defect-rate and side-by-side metrics for Bing autosuggest
- Delivered a service for powering non-prefix-match suggestions to major international markets; expanded autosuggest coverage and serves **~1,600 QPS** per instance
- Developed the **autosuggest ranker** of the Chromium-based Edge browser using a regression model; side-by-side metrics showed similar performance as Chrome
- Prototyped and productionized an **n-gram** and an **RNN** language model 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 deployed a distributed **end-to-end validation/performance testing** service
 - Handles scheduling, traffic generation, metrics collection, data validation, and alerting
 - Used for experimentation, automating customizable tests, and failure monitoring

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 into Yahoo! View using **AWS CloudSearch**; built main UX flows 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 - Present

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

HoppyPup | Android/iOS Game | Unity, C# Oct 2020 - Present

A 2D mobile game featuring custom assets, dynamic shadows, and day-night system

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 App | 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