Simeng Yang

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EXPERIENCE

Microsoft | Software Engineering Intern | Jan – Apr 2020

- Decreased end-to-end pipeline runtime by 30% and memory footprint by 20% across thousands of machine learning scenarios in Microsoft's AI Builder platform via data reduction in Python and Spark
- Enhanced telemetry with richer data profiling to gain actionable insights on user engagement and model quality
- Enabled users to compose and import custom pipelines by leveraging MIT's open-source MLBlocks framework ↗

Broadway Technology | Software Engineering Intern | May – Aug 2019

- Developed support for a new class of bonds required by a major client within Broadway's trade querying and subscription system using C++ and Python
- Revamped trade times to microsecond precision by overhauling C++ code to the latest FIX trading protocol
- Reduced code complexity by refactoring Broadway's trading platform to use generic libraries / variadic templates

SnapTravel | Software Engineering Intern | Sept – Dec 2018

- Profited an estimated sales impact of $2M USD in 2019 by developing a loyalty rewards Flask microservice to incentivize business travelers
- Enabled microservice launch by creating a dashboard to easily manage the lifecycle of loyalty credits in Django
- Saved team 50+ hours / week by implementing a PDF library in Python to autogenerate and upload invoices

Novus Health | Software Engineering Intern | Jan – Apr 2018

- Decreased turnaround for crafting questionnaires from 3+ hours to 5 minutes by implementing a drag-and-drop builder using React / Redux
- Reduced entry update times by 40% by composing and automating data import tools in PHP and SQL
- Exposed critical data for third-party requests by creating 10+ public REST APIs

Genesys | Software Engineering Intern | May – Aug 2017

- Served hundreds of calls daily by building a media control suite for audio recording and playback in C++
- Boosted sound quality by up to 50% by extending support for the next-generation Opus audio codec
- Cut development wait times for pushed builds by 4x by implementing a build status report system in Python

PROJECTS

3D Dogfighter ↗ "Most Over-the-Top" Prize Winner at Waterloo Game Jam 2017

- Developed a multiplayer aerial combat game in C# with Unity
- Integrated server networking logic with matchmaking system for hosting 20+ concurrent users

Student Management System ↗

- Implemented a database to manage 1000+ student records using LAMP Stack
- Designed robust input sanitation and validation using error handlers and regular expressions in PHP

SKILLS

Languages: Python, Java, JavaScript (ES6), C++, C#, SQL, R, PHP, Bash
Frameworks/Tools: React, Redux, Flask, Spark, Node.js, Laravel, Django, Android, Docker, Redis, Git

EDUCATION

University of Waterloo | Bachelor of Computer Science | Sept 2016 – Apr 2021

- Coursework on Operating Systems, Data Structures & Algorithms, Concurrency, Networks, Artificial Intelligence