Simeng Yang

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EXPERIENCE

Instagram | Software Engineering Intern | Aug – Dec 2020

- Working to boost ads targeting on Instagram Shopping through user intent modeling in **Python** and **C++**

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 dimensionality 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 execution and querying 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 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 6+ hours to 3 minutes by implementing a drag-and-drop builder using **React / Redux**
- Reduced database update times by 40% by composing and automating data import tools in **PHP** and **SQL**
- Exposed critical data for requests from external partners by creating 10+ **REST APIs**

EDUCATION

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

- Coursework on Machine Learning, Artificial Intelligence, Algorithms, Operating Systems, Concurrency

PROJECTS

Game Jam Score Classifier *Top 6/123 in Kaggle Competition*

- Implemented a LightGBM model in **Python** to predict scores of game entries in the Ludum Dare Game Jam
- Achieved a 0.932 classification accuracy through careful feature engineering and feature selection

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 players

SKILLS

Languages: Python, C++, Java, JavaScript (ES6), C#, SQL, R, PHP, Bash
Frameworks/Tools: PyTorch, Keras, Spark, Pandas, NumPy, Jupyter, AWS, Docker, Redis, Linux, Git