Simeng Yang

🖥 simengyang.me   📞 905 807 6948   ✉ s275yang@uwaterloo.ca   ⦿ /simeng-yang   in /simengyang

EXPERIENCE

Facebook | Software Engineering Intern | Sept – Dec 2020

- Pioneered efforts to improve product relevance on Instagram Shopping by developing ML models for predicting users' preferred product categories in Python
- Built and validated extensible infrastructure to support offline predictions, enabling analysis of cold-start users
- Boosted querying rate of model predictions by up to 500x by optimizing Spark tuning for ranking operators

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
- Saved team 50+ hours / week by implementing a PDF library to autogenerate and upload invoices in Python

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

EDUCATION

University of Waterloo | Bachelor of Computer Science | Sept 2016 – Dec 2020

- Coursework on Machine Learning, Artificial Intelligence, Algorithms, Operating Systems, Computer Networks

PROJECTS

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

- Implemented a LightGBM model to predict scores of game entries in the Ludum Dare Game Jam in Python
- 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