

# 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 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 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 6+ hours to 3 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