Lucas Yim

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Education

Georgia Institute of Technology, *B.S./M.S Computer Science, GPA: 4.0* Expected: 12/2024 | Atlanta, GA
Coursework: Linear Algebra, Multivariable Calculus, Design & Analysis of Algorithms, Computer Systems and Networking, Computer Organization and Programming, Machine Learning, Networking, Combinatorics, Human-Computer Interaction

Professional Experience

Bank of New York Mellon | Pershing, 06/2023 – 08/2023
Software Engineering Intern (Distributed Systems)
- Leveraged Angular to design and implement an intuitive admin tool to manage communication between data centers and vendor processes to ensure maximum uptime of market data services.
- Developed Java Spring REST API to communicate between admin page and multiple microservices and databases utilizing HTTP and TCP/IP Sockets.
- Wrote Java JUnit and Angular Jasmine test cases to achieve > 80% code coverage and pass SonarQube CI/CD requirements.
- Utilized Splunk Logging to track and debug time-sensitive communication issues between microservices, collaborating with cross-functional teams to ensure prompt issue resolution.

Georgia Institute of Technology, *Systems and Networks Teaching Assistant* 08/2023 – present | Atlanta, GA
- Lecture in lab sections of 50 students about content related to the fundamental processes of computer systems and networking.
- Create and grade homeworks, projects, lab slides, tests, and test prep material.
- Host weekly office hours and answer student questions about lecture material and homework and project issues

Travelers Insurance, *Software Engineering Intern* 06/2022 – 08/2022 | Hunt Valley, MD
- Designed and developed electron desktop application using React to automate the initial steps of migrating ML models to AWS, including Jenkins CI/CD Pipeline, Github WebHooks, and AWS Terraform integration.
- Implemented Github OAuth and Okta Single Sign On Authentication (SSO) in compliance with Travelers design convention.
- Contributed to Entity Extraction Project by implementing AWS Lambda functions to validate extracted fields.

Georgia Institute of Technology, *Automated Algorithm Design Scoliosis Detection* 01/2022 – 05/2023
| *Vertically Integrated Project Student Researcher*
- Conducted research on the use of multi-objective genetic programming in order to tune ResNet model hyperparameters to identify the Cobb angle from x-rays of idiopathic scoliosis patients and predict within 5% of radiologist measured values.
- Communicated and presented to shareholders and investors to procure funding and gauge interest in future works.
- Implemented tracking of multiple novelty metrics in order to identify future directions for the project.
- Wrote evaluation functions to determine accuracy of the EMADE model's prediction of landmark data and cobb angle of scoliosis x-ray using mean squared error and SMAPE angle.
- Successfully transitioned codebase and MySQL database from PACE private cloud to Microsoft Azure compute and AzureSQL.

Bant Sports LLC, *Full Stack Software Engineering Intern* 03/2021 – 05/2022 | Baltimore, MD
- Implemented full low latency In-App messaging system using Swift and Firebase RealTime Database.
- Constructed a REST API employing Typescript and NodeJS to manage interactions with Firestore Database.
- Partnered with design team and senior engineers to create a comprehensive iOS Minimum Viable Product (MVP) using Swift.
- Operated within a dynamic Agile-based development environment at a rapidly evolving startup.

Projects

SmashFrameData iOS app 03/2020 – Present
- Developed and manage an iOS application providing frame data and hitbox information for Super Smash Brothers Ultimate.
- The app boasts a user base exceeding 15,000 individuals, and it has garnered an impressive rating of 4.9 out of 5 stars from over 100 reviews on the Apple App Store.
- Engaged in market research within the gaming community to craft an app equipped with features absent in existing resources.
- Utilized Python to web scrape all data with Selenium and BeautifulSoup into a SQL database.
- Built UI programmatically using Swift UIKit and based application on a Model-View-Controller Architecture.

HokusAI | 1st Place Digital Track at Horizons 2022 03/2022
- Leveraged OpenAI's Machine Learning models, Contrastive Language–Image Pre-training and a Vector Quantized Generative Adversarial Network (VQGAN) to turn text prompt into art.
- Built frontend with React.js. Implemented Firebase authentication and used Firestore as NoSQL cloud database.
- Hosted model in Google Colab and communicated with Firebase to queue jobs in real-time.

Big Data Big Impact | Twitter Sentiment Analysis Platform Team 09/2020 – 05/2021
- Created and hosted Flask API on Google Cloud Platform to get and deliver tweet data to the analysis team.
- Scraped, stored, and cleaned 10000+ tweets into a Google CloudSQL database for use in machine learning models.

Skills

Programming Languages
Python, Java, C++, Swift, HTML, CSS, Javascript, SQL, Typescript, SpringBoot, Angular, React, C

Technical Skills
Bash, AWS, GCP, Firebase, Jira, Git, Selenium, Numpy, Agile