Jason Yi

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Education

University of North Carolina at Chapel Hill — Chapel Hill, NC
Bachelor of Science in Computer Science, Statistics and Analytics ~ GPA: 3.54/4.00 — *Aug. 2022 – May 2026*

- **Coursework**: Operating Systems, Machine Learning, Algorithms, Data Structures, Databases, Models of Languages and Computation, Computer Organization, Foundations of Programming, Probability, Data Analysis

Technical Skills

Languages: C/C++, Java, Python, TypeScript, JavaScript, HTML/CSS, Assembly, Swift/SwiftUI
Frameworks/Libraries: React.js, GraphQL, Angular, Node.js, PostgreSQL, NumPy, Pandas, Matplotlib, JUnit
Developer Tools: VSCode, Git, GitHub, Vim, Jira, Jenkins, Splunk, IntelliJ, Linux Kernel, AWS, XCode

Experience

Fidelity Investments — June 2024 - Present
Software Engineer Intern — *Durham, NC*

- Developed Backend services in **GraphQL** via **Experience API** for Account Opening which impacts **50+ million users**, and Frontend services in **Angular and TypeScript** for Crypto IRA
- Implemented customer info, address validation, and risk analysis services to prevent user fraud or illegal activity during account opening using **TypeScript and GraphQL** by matching data from multiple downstream APIs
- Established excellent code quality and performance through unit testing via **Mocha, Splunk, and NestJS**

Outlier — April 2024 - June 2024
AI Trainer/Code Reviewer — *Remote*

- Proficiently trained and prompt-engineered large language models, utilizing data analysis libraries such as **Pandas, NumPy, and Matplotlib**, alongside **PyTorch** and **Scikit-learn** frameworks
- Provided thorough evaluations of AI-generated code outputs against benchmarks, user feedback, performance metrics, and insights gained from Reinforcement Learning from Human Feedback (RLHF)
- Collaborated with teams to integrate feedback loops for iterative refinement of AI-generated outputs in **Python**

UNC Computer Science Department — Aug. 2023 – May 2024
Data Structures Undergraduate Teaching Assistant — *Chapel Hill, NC*

- Managed office hours schedule with 20 TAs and related communications with **250+ students** on Piazza
- Assisted with grading **50+ students'** coding assignments in **Java**, comprehension questions, and exams
- Hosted weekly in-person office hours for **15+ students** for assignment aid and exam review

CS+Social Good — Jan. 2023 – Dec 2023
Full Stack Developer — *Chapel Hill, NC*

- Collaborated with CATCH (Carolina Adapts Toys for Children) to develop a user-friendly and responsive platform to support their mission of adapting toys for children with special needs using **React, Firebase, UI/UX Design**
- Improved user navigation with a fixed Navbar and essential functions for efficient data management

Projects

Distributed Stock Exchange | *C++, FIX/FAST, FastDDS, MySQL, TCP/IP, Distributed Systems, Linux*

- Engineered **FIX/FAST** protocol based high frequency C++ **stock exchange**, load-balancing over 3 matching engine nodes, supporting **1,000,000+** order insert request and transactions **per second**
- Supports **market/limit/stop order** matching through **Price-Time Priority**; built gateway node for **TCP/IP** request authentication/authorization from **MySQL** database; used **FastDDS** for inter-node communication
- Designed and integrated custom thread-safe optimized data structures (**priority queues, hash maps**) and utilized **GNU** profiling techniques for optimizing insert latency by **100x** from initial speeds

Restaurant-Finder | *PostgreSQL, Express.js, React.js, Node.js (PERN Stack)*

- Developed a **full-stack website** for Creating, Retrieving, Updating, and Deleting restaurants and reviews
- Maximized data efficiency by **utilizing dual Postgres tables** for managing restaurant and review data
- Improved component data retrieval to automatic and minimized prop drilling by **utilizing Context API**

Twittermenti | *Swift, CreateML, Twift, Twitter API*

- Developed a model that displays the **sentiment** of a given Twitter handle via emoji by filtering the top 100 tweets
- Achieved **96% accuracy rate** in classifying tweets into positive, negative, or neutral sentiments using CreateML