

Muchen Zhang

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EDUCATION

Georgia Institute of Technology, College of Computing

Atlanta, GA

BSCS, Computer Science: GPA: 3.92

May 2025

PROFESSIONAL EXPERIENCE

Amazon.com, Inc., Seattle, WA

May 2024 – August 2024

Software Developer Engineer Intern

Skills: Java, React, AWS Lambda

- Launched the integration of seller certification with a third-party issuing agency. Projected to drive \$12M in Guided Buying Operations within the next year and generate \$1.8M in revenue for Amazon
 - Architected a solution to receive messages from SNS and SQS, process them using Lambda functions, and store the results in RDS via internal endpoints
 - Monitored metrics through AWS CloudWatch and directed failed requests to a dead-letter queue for retries
 - Collaborated with QA and third-party engineers to troubleshoot using CloudWatch, tested 4 user scenarios to ensure system stability
- Designed and executed the integration of Unique Entity ID into Seller Profile dashboard. Mitigated latency spikes in read database operations associated with bi-weekly asynchronous Lambda refresh jobs
 - Leveraged hashmaps to optimize read and write operations with DynamoDB and RDS. Designed solutions to process over 10,000 entries in under 10 minutes
- Coordinated with PM, QA, and third-party company to ensure production readiness

Hylanc Science & Technology Co. Beijing, China

June 2023 – August 2023

Fullstack Developer Intern

Language: Java/Spring, Vue.js

- Automated the approval process of business services using Spring, ensuring scalability and maintainability
- Empowered users with a seamless task flow by developing a backend feature to export data entries to Excel, facilitating data analysis and reporting
- Successfully integrated the Flowable API into the existing application. Designed and executed the end-to-end workflow solution, resulting in streamlined process and a 40% reduction in approval time
- Refactored the budgeting system by introducing tree structures and joint database tables, enabling filtering of budgets by diverse properties and streamlining the business process

NCR Corporation, Atlanta, GA

May 2022 – January 2023

Site Reliability Engineer Intern

Language: Python

- Productionized a REST API streamlining the change management process for 2000+ developers at NCR, resulting in increased development efficiency
- Initiated end-to-end development and containerization of the API using Python Flask framework, ensuring seamless deployment and scalability
- Deployed the GitOps process using Google Cloud Functions and Pub/Sub queues, configured workflow triggers and delivered smooth, automated application integration
- Lead the implementation of Github Actions and Slack integration, enabling real-time notifications to SRE developers upon production repository changes, bolstering team communication and responsiveness
- Increased testability, robustness, and performance through behavior-driven development (BDD) tests using Behave alongside unit tests and CI/CD pipelines, increasing test code coverage to 100%

PROJECTS

College Crib | *Java Spring, React Native, SQL, AWS*

August – December, 2023

- Designed and implemented a platform for college students to find short-term housing, leveraging AWS S3 for image storage and AWS RDS for a relational database with custom schema and foreign keys
- Established user authentication with Spring Security, implemented separation of user roles for metrics collection
- Conducted user interviews and A/B tests each sprint for prototypes, refining the system based on user insights

TECHNICAL SKILLS AND CERTIFICATIONS

Certification: AWS Cloud Practitioner (CLF-C01, 2023)

Languages and Frameworks: Java, Python, Spring Boot, Vue, C, PHP, SQL, React

Developer Tools: AWS, Docker, Cloud Functions, IntelliJ, Git, Chrome DevTools, Aseprite