

# CHARLES MARSHALL

## EMPLOYMENT HISTORY

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### SOFTWARE ENGINEER

Dec 2022 - Feb 2025

#### Southwest Airlines

Dallas, TX (Remote)

- ◆ Developed and deployed the backend for Southwest Airlines' Payments and Accounting team, optimizing the SWA Getaways payment system for seamless transactions. Enhanced reliability and speed through robust logging and failover mechanisms.
- ◆ Designed, developed, and deployed SWA Getaways APIs to both QA and iTest environments, ensuring smooth integration and functionality across different testing phases.
- ◆ Implemented and deployed AWS Lambda-based solutions and CloudWatch monitoring protocols, enhancing system reliability, performance, and real-time monitoring.
- ◆ Engineered and maintained infrastructure components required for seamless API deployments, automating provisioning and ensuring scalability in AWS.
- ◆ Authored and maintained technical documentation detailing API functionality, deployment processes, and system architecture to facilitate knowledge sharing and onboarding.
- ◆ Optimized API integrations, reducing processing time and ensuring transaction accuracy.
- ◆ Collaborated with cross-functional teams and partners to implement secure financial solutions, ensuring compliance with industry regulations.
- ◆ Participated in code reviews and sprint planning, contributing to high-quality software delivery and continuous improvement.
- ◆ Engineered robust payment processing systems and API integrations for Southwest Airlines' Vacations portal, streamlining transaction flows and currency operations.
- ◆ Deployed distributed payment processing systems using AWS Lambda, enhancing transaction reliability and reducing latency across Southwest Payments.
- ◆ Developed and deployed real-time monitoring solutions using CloudWatch, enabling proactive system maintenance and minimizing payment processing disruptions.

### ASSOCIATE SOFTWARE ENGINEERING / INTERN

Jun 2021 - Aug 2022

#### Fidelity Investments

Durham, NC (Hybrid)

- ◆ Developed and optimized backend components for Bond Beacon, Fidelity's newest bond trading platform serving thousands of monthly users, ensuring seamless and efficient trade execution.
- ◆ Enhanced the user interface for riskless principal clients, leveraging TypeScript and Angular to improve usability, streamline workflows, and reduce transaction time.
- ◆ Maintained data integrity by systematically correcting prices and status updates for riskless principal clients, utilizing Oracle SQL Developer, Postman, and Bitbucket.
- ◆ Streamlined bond trading operations by optimizing backend logic, database queries, and API performance, improving system reliability and execution speed.
- ◆ Implemented robust API testing protocols using Postman and Bitbucket, ensuring reliable and efficient trading operations.
- ◆ Actively participated in Agile development practices, contributing to daily stand-ups, sprint planning, and iterative development cycles, fostering cross-functional collaboration.

## INTERNSHIPS

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### CYBER SECURITY & CLOUD COMPUTING

Mar 2022 - May 2022

#### NBCU x America on Tech

Remote

- ◆ Cloud security fundamentals, including AWS EC2, storage security, identity management, and authentication mechanisms.
- ◆ Introduction to serverless security, exploring secure deployments and API protection strategies.
- ◆ Penetration testing basics, using tools like Postman to analyze API security and detect vulnerabilities.

### SOFTWARE ENGINEERING / ANALYTICS

Feb 2021 - Jun 2021

#### Funding Fuel

Remote

- ◆ Building the transaction engine for the platform, while learning about the industry and company causes.
- ◆ Conducted User testing to ensure secure systems and a secure transaction.
- ◆ Ad hoc data analysis, research, project work on projects related to the firm and education of the intern.

### WEB SERVICES INTERN

Jul 2019 - Aug 2019

#### Columbia University Irving Medical Center

New York City

- ◆ Building and publishing content for a variety of new or existing websites of CUMC through Drupal and WordPress.
- ◆ Communicating with clients through a ticketing system called JIRA for support requests and resolve it in a timely manner.
- ◆ Providing assistance in curating and presenting stories, images, and videos in CUMC's web content management system.

## EDUCATION

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### BACHELOR OF SCIENCE (BS) IN COMPUTER SCIENCE, MINOR IN WEB PROGRAMMING AND COMMUNICATIONS

#### The State University of New York at Fredonia

Fredonia, NY

## SKILLS

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Python, HTML5, CSS, JavaScript, Node.js, C/C++, Java, SQL, Angular, Git, Linux, Firebase, Jira, Drupal, MongoDB, RESTful API, Postman, Maven, Tomcat, AWS, Project Management, Leadership, System Integration, Version Control, Data Analysis, Cloud Computing, Security Protocols, Continuous Integration, User Experience, Veracode, Sonar Scan, Swagger Documentation.