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# CHARLES MARSHALL

## EMPLOYMENT HISTORY

**SOFTWARE ENGINEER**                                                           Dec 2022 - Feb 2025
*Southwest Airlines*                                                            *Dallas, TX (Remote)*

♦ Streamlined data processing workflows through efficient coding practices that reduced average response times per request down to under two seconds an improvement achievable solely due to individual programming efforts without assistance needed from other teams.

♦ Created high-performance SWA Getaways APIs that functioned seamlessly in both QA and iTest architectures, reducing average bug resolution times from three days to less than one day through rigorous integration strategies.

♦ Engineered and implemented AWS Lambda solutions combined with CloudWatch monitoring protocols, enhancing system reliability by 40%, improving performance metrics, and establishing real-time alerts to ensure immediate issue resolution.

♦ Architected solutions for critical infrastructure systems essential to reliable API deployments, ensuring scalability within AWS while automating workflows that saved the team 15 hours of manual work each week.

♦ Drafted user-friendly manuals covering intricate aspects of API operations and architectural frameworks to improve communication between departments; cut down training time needed for new employees by two weeks on average.

♦ Conducted in-depth code reviews for six major sprint cycles, identifying critical bugs and suggesting enhancements that resulted in a 30% reduction in post-release issues and improved software stability across all applications.

♦ Revamped financial transaction processes for the vacation booking platform at Southwest Airlines; designed resilient payment systems that generated significant time savings while handling thousands of customer payments seamlessly each day.

♦ Conducted thorough testing phases resulting in findings that fixed the three biggest causes of crashes within existing platforms as part of optimizing new distribution strategies for robust online payments at Southwest Airlines.

♦ Designed innovative alert mechanisms within the existing infrastructure using AWS tools, directly minimizing payment processing interruptions while ensuring an uninterrupted service experience for thousands of users daily.

**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.

♦ Innovated interactive design elements focusing on usability enhancements for riskless principals resulting in faster completions of trade executions over 200 instances logged as completed without errors post-launch evaluation period.

♦ Rectified pricing discrepancies and status updates for 50+ riskless principal clients through Oracle SQL, ensuring a consistent data foundation that directly improved transaction accuracy across the bond trading platform.

♦ Revamped API performance through targeted optimization efforts that improved transaction speeds by an average of 40 milliseconds per request ensured smoother user experiences during high-volume trading periods.

♦ Architected detailed test scripts using industry-leading tools like Postman while managing version control through Bitbucket; reduced debugging time by an average of eight hours per week on critical systems.

♦ Facilitated Agile development practices through active engagement in daily stand-ups and sprint planning, enhancing cross-functional collaboration that led to a 30% increase in project delivery speed over three months.

## INTERNSHIPS

**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.

♦ Investigated advanced serverless security measures, optimizing deployment processes by 20% while implementing robust API protection protocols that enhanced overall system resilience against potential external threats.

**SOFTWARE ENGINEERING / ANALYTICS**                                           Feb 2021 - Jun 2021
*Funding Fuel*                                                                  *Remote*

♦ Formulated features within the transactional framework, achieving over 200 successful test transactions before launch contributed valuable feedback on optimizing future iterations based on hands-on experience gained throughout development.

♦ 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*

♦ Streamlined the process of building web pages in both Drupal and WordPress delivered high-quality updates on schedule while managing an average of ten simultaneous projects without delays.

♦ Coordinated client interactions through the JIRA platform, resolving an average of 40+ tickets per week while prioritizing critical issues based on impact to streamline workflow efficiency across departments

## EDUCATION

**BACHELOR OF SCIENCE (BS) IN COMPUTER SCIENCE, MINOR IN WEB PROGRAMMING AND COMMUNICATIONS**
*The State University of New York at Fredonia*                                  *Fredonia, NY*

## SKILLS

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.