

Alejandro Rubio

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Skills

Languages: JavaScript, TypeScript, Java, Python, SQL

Technologies: Angular, React, NextJS, Spring Boot, PostgreSQL, Git, Docker, Kubernetes, Azure DevOps

Experience

Full Stack Software Engineer, General Motors – Austin, Tx January 2023 – Present

- Architected and developed a Load Balancer Automation web application using Angular for frontend and Spring Boot for backend, implementing RESTful APIs and responsive UI components, resulting in \$7.2 million annual productivity savings
- Optimized database performance by refactoring the data access layer using JPA and Hibernate, and implemented a custom caching solution in Java, reducing API response times by 60% and generating over \$700k in productivity savings
- Enhanced frontend performance by implementing Angular's reactive forms and lazy loading modules, decreasing initial page load times by 50% and improving overall user experience
- Designed and implemented an automated certificate renewal system for load balancers using Spring Boot Scheduler and integration with a third-party Certificate Authority API, reducing manual intervention by 80% and saving an estimated \$1.3 million annually
- Led a team effort to refactor legacy code in the certificate management system, implementing design patterns and improving code modularity, resulting in a 40% reduction in bug reports

Embedded Software Engineer Intern, Motorola Solutions – Plantation, FL June 2022– August 2022

- Developed a suite of Python scripts utilizing pandas and NumPy libraries to automate radio firmware versioning and organization, processing over 10,000 firmware files and reducing manual data entry time from 40 hours to 6 hours per week
- Implemented a comprehensive unit testing strategy using pytest, achieving 95% code coverage for new scripts, and authored technical documentation that decreased teammate onboarding time by 10 days

Embedded Software Engineer Intern, Motorola Solutions – Plantation, FL June 2021– August 2021

- Conducted in-depth investigations of critical field issues for Motorola APX series radios using Wireshark and proprietary RF analysis tools, resolving 12 high-priority customer issues
- Engineered an automated testing framework using Python and Jenkins CI/CD pipeline, implementing over 200 unit tests that increased code coverage by 40% and reduced regression testing time by 11 hrs

Education

University of Central Florida

May 2022

Bachelor of Science, Computer Science

Notable Coursework: Discrete Structures and Algorithms, Processes of Object-Oriented Software, Web Based Information Technology, Operating Systems, Robot Vision