# JULIO HERNANDEZ

## SENIOR SOFTWARE ENGINEER

Washington DC Metro Area | linkedin.com/in/juliohjr | julio.developerx@gmail.com

### SUMMARY

Senior Full-Stack Software Engineer (AI & Product focused) with 4+ years of experience architecting and shipping high-impact, scalable applications. Expert in a modern web stack, leveraging JavaScript, TypeScript, React, and Vue.js for robust frontend development, complemented by deep backend capabilities in Python, Java, and AWS serverless architectures. A technical generalist with a proven track record in LLM deployment, championing development best practices (TDD, automated testing), and utilizing MBA-backed business acumen to own feature roadmaps, drive scaling, and ensure profitability. Passionate about bridging the gap between cutting-edge AI technologies and user-centric product development.

### SKILLS

**Languages:** TypeScript (primary), JavaScript (ES6), Python, SQL (MySQL, PostgreSQL), Java, HTML5/CSS3, Bash/Shell Scripting

**Cloud & DevOps:** AWS (Lambda, Fargate, EC2, S3, RDS, CloudFormation, SQS), Docker, CI/CD (Jenkins, GitLab CI)

**AI/ML & Tools:** LangGraph, GenAI/LLM Integration, Ollama, Windsurf, Claude Code

**Frameworks & Libraries:** FastAPI, React, Vue, Angular, Pytest, Spring Boot, NumPy, Pandas

**Databases:** PostgreSQL, MySQL, DynamoDB, Aurora

**Methodologies:** Agile, Scrum, Test-Driven Development (TDD)

### PROFESSIONAL EXPERIENCE

**CAPITAL ONE FINANCIAL | McLean, VA**

*Senior Software Engineer | Aug 2022-present*

- Unlocked $70+ million in value by architecting and developing a full-stack, GenAI-powered content validation system; designed the responsive frontend with Vue and TypeScript, while building the backend service using Python, FastAPI, LangGraph, and Ollama 3.1 70B LLM on Kubernetes to automatically validate marketing content against legal requirements, dramatically reducing legal review cycle times.
- Played a pivotal role in a collaborative team effort to develop an email marketing pipeline, utilizing Python and AWS services (Lambda, SQS) for targeted outreach to 8 million Capital One customers. This initiative eliminated dependency on Salesforce Marketing Cloud, contributing to $5 million in annual savings.
- Enhanced critical e-filing components using AWS Step Functions and Lambda, contributing to a 20% reduction in filing errors for Capital One's Cash Transaction reports (CTRs) to FINCEN, resulting in approximately $2 million in annual savings.
- Implemented serverless architecture using AWS Lambda functions, Aurora Databases, S3 buckets, and Step Functions, reducing infrastructure costs by 30%, saving roughly $10,000 monthly.
- Led failover activities for all e-filing components across AWS regions, ensuring application resilience and uninterrupted filing of cash transaction reports. This effort potentially saved Capital One Risk Management teams around $25,000 per potential region outage.
- Architected and deployed AI-driven developer workflows using Claude agents, integrating across Jira, Confluence, Google Suite, GitHub, and AWS to automate complex coding tasks, streamlining code review, and generating documentation, which reduced the average development cycle time by 7 hours per sprint and significantly improved code quality standards.
- Elevated e-filing system reliability by improving unit test coverage to 95% for all Lambda components. Implemented comprehensive component tests using the Behave framework and live dependency tests, enhancing system accuracy and facilitating rapid issue identification in both code and connected resources.
- Mentored 5 engineers leading to improved performance reviews, higher team impact, and 3 promotions.

### EDUCATION

**MS, Computer Science** – Georgia Tech | 2029

**Capital One CODA Bootcamp** – Mclean, VA | 2022 | Most improved engineer award

**MBA** – University of Maryland Global Campus, Adelphi, MD | 2020

**BSBA, Management** – The Catholic University of America, Washington, DC | 05/2015

### CERTIFICATIONS

- AWS Certified Solutions Architect - Associate (SAA)
- Level Up Your Code Quality As A Software Engineer (Taro)