Fernando Franco Jr.

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PROFESSIONAL SUMMARY

Software Engineer with expertise in backend systems, embedded optimization, and cloud security. Experienced in scaling real-time telemetry pipelines, reducing inference latency on constrained hardware, and deploying secure AWS architectures (IAM/KMS/Cognito) for compliance-driven environments. Skilled in Python, C/C++, and distributed systems with a proven track record of performance optimization, high availability, and reliable delivery in Agile teams.

EXPERIENCE

xVector.us | *Secure AI Software Engineer | 40+ Hours a Week* **Jul 2025 - Present**

- Optimized embedded inference in **C/C++**, reducing token latency by **50%** and **RAM** usage by **41%**.
- Scaled real-time telemetry pipelines for performance profiling and automated trade-off tuning.
- Automated **AWS** security workflows (**IAM, KMS, Cognito, CloudWatch**) to meet **HIPAA/FedRAMP** practices.
- Partnered with hardware/software engineers to improve reliability, documenting recurring issues.

Candidate Tools | *Software Engineer | 40+ Hours a Week* **April 2025 - Jul 2025**

- Prototyped device control software on MCU platforms for real-time decision-making with quantized models.
- Designed **React + Node.js** telemetry dashboards, reducing debugging time by **18%**.
- Built deployment pipelines with **Docker**, shortening release cycles by **30%**.
- Designed secure system onboarding and license validation flows supporting cloud infrastructure integration.

TECHNICAL SKILLS

***Languages**: C, C++, Python, Java, TypeScript, SQL, Bash (familiar with Rust, Golang)*
***Embedded/Systems:** Linux development, low-power MCU programming, real-time optimization, telemetry/logging*
***Cloud & DevOps:** AWS (S3, Lambda, ECS, CloudWatch, Cognito, KMS), Docker, GitHub Actions, GitLab CI/CD*
***Networking:** TCP/IP, socket programming, system monitoring*
***Full-Stack:** React, Node.js, REST APIs, data visualization dashboards*
***Tools/Collaboration:** Git, Jira, Agile workflows, technical documentation*

EDUCATION

University of Oklahoma **Norman, Oklahoma**
Bachelor of Science in Computer Science *June 2020 - May 2025*
GPA 3.41/4.0

PROJECTS

Overleaf Update Project | *JavaScript, React, Docker* | *University Team Project*

- Enhanced document management workflows, improving usability by **30%**.
- Designed and integrated **React** components for collaboration tools and document organization.
- Conducted usability testing, reducing interface load times and boosting performance efficiency.

Offline GPS + Streaming Dashboard | *Python, Folium, aiohttp*

- Developed a real-time **GPS** data streaming pipeline using **Python and aiohttp**, enabling low-latency updates from embedded devices.
- Built an offline dashboard with **Folium** for interactive map visualization, supporting environments with limited or no internet connectivity.
- Optimized data handling to reduce refresh latency by **~25%**, improving reliability for long-duration sessions.