

ALEJANDRO M. DIAZ LIMON

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EDUCATION

University of Florida

Gainesville, FL

Bachelor of Science — in Computer Science: Cybersecurity Specialization; Business Administration Minor Expected May 2027

- **Relevant Coursework:** Data Structures and Algorithms; Information and Database Systems; Computer Organization; Computer and Information Security; Engineering Statistics; Discrete Mathematics; Linear Algebra; Intro to SWE

EXPERIENCE

Mauimir Tech – Founding Engineer

May 2026 – Present

AI Solutions Studio - Automation tools for small businesses; branding, product direction, and engineering.

Remote

- **Lithous** – an AI-automated order-intake pipeline for food businesses taking orders via Instagram DM.
- Architected the LLM reasoning pipeline (escalation pre-check + cache routing) to cut per-order inference cost and reduce unnecessary human handoffs.
- Built multi-tenant infrastructure (FastAPI, SQLite, Anthropic SDK) supporting per-client isolation from day one.
- Designed Slack-integrated ops tooling for cost monitoring, escalation triage, and automated dev digests.

Undergraduate Research Assistant

Dec 2025 – Present

University Of Florida - Dr. Marvin Andujar

Gainesville, FL

- Conducting brain-computer interface (BCI) research using EMOTIV EEG headsets and RYZE Tello drones to develop motor imagery-based control systems for drone navigation in simulated and physical environments.
- Contributing to BlueMuse, an open-source LSL streaming tool, while developing custom machine learning pipelines for movement detection and EEG noise filtering.
- Architected a raw UDP input pipeline in Unity for real-time BCI-driven drone control, bypassing LSL's stream discovery layer with hardcoded endpoints and custom serialization to reduce signal latency from ~10-30ms to ~1-5ms

Security Engineering Intern

Feb 2026 – June 2026

Extern - Hydroficient

Remote

- Building and configuring MQTT-based IoT data flow using Python and Docker to simulate real-time water monitoring systems for commercial properties; deploying a real-time security monitor dashboard using Streamlit to visualize pipeline health.
- Implemented TLS encryption and device certificate authentication to secure IoT communications; benchmarked encryption overhead on high-frequency sensor data and defended against replay attacks using timestamps, counters, and HMAC signatures.

Mexican American Student Association – WebMaster Lead

Aug 2025 – Present

Student Organization

Gainesville, FL

- Founded and engineered the organization's production website using Astro, TypeScript, and Tailwind CSS on Cloudflare Workers.
- Established the web operations team by defining roles and recruiting members; leading ongoing site updates and deployments.
- Developed a Python Telegram bot using the python-telegram-bot library and Google Sheets API to automate a 200+ participant org-wide game, managing real-time eliminations and target chain logic

UF GatorAI – Project Market Risk

Aug 2025 – Nov 2025

AI Model Development Lead

Gainesville, FL

- Implemented and benchmarked unsupervised learning models (VAE+GMM, VaDE), improving the benchmarked clustering accuracy of market risk data by over 30% through Python-based statistical analysis in collaboration with a 10-person team.
- Implemented normalizing flows for density estimation to model price distribution for optimized option hedging risks.

PROJECTS

GoGators – Personal AI Planner PWA | *React, Node.js, Express, Docker, AWS, Claude API*

March 2026

- Built a multi-turn NLP engine with DynamoDB session persistence and TTL expiration, enabling pronoun and temporal reference resolution across messages; engineered a local file access layer via structured chat protocol for host file access within conversations.
- Implemented a tiered inference pipeline routing input through a local intent classifier for high-confidence queries, falling back to Claude API for ambiguous requests, reducing API costs by 60%.
- Automated CI/CD with GitHub Actions – every commit triggers build, test, ECR push, ECS redeployment, and CloudFront cache invalidation with zero manual steps.

Baptize – AI Security Gateway | *React, TypeScript, Zustand, Tailwind CSS*

Jan 2026

- Designed a 4-stage inspection pipeline (auth, rate limiting, threat scanning, policy) for securing LLM API requests in real time
- Architected prompt injection and jailbreak detection with sub-5ms latency overhead
- Implemented API key security using HMAC-SHA256 hashing with pepper resulting in zero plaintext leak
- Built full audit trail logging for compliance and incident response

TECHNICAL SKILLS

Languages: Python, C/C++, Java, JavaScript, TypeScript, SQL (PostgreSQL, MySQL), HTML/CSS, Bash, RISC-V

Frameworks/Tools: WSL/Ubuntu, .NET, LLM APIs, TLS, MQTT, OpenSSL, HMAC, threat modeling, STRIDE, React (Vite, React Router), Next.js, FastAPI, Node.js, Express.js, Tailwind CSS, Zustand, Docker, Git/GitHub, Unity, Streamlit

Cloud: AWS (ECS, ECR, DynamoDB, CloudFront, S3, Cognito, Lambda, IAM), Firebase/Firestore, GitHub Actions, Cloudflare