Jaden Morales

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Education

College of Charleston Charleston, SC
Bachelor of Arts in Computer Science, Minor in Applied AI Expected May 2027

- **Relevant Coursework:** Machine Learning, Applied AI, Software Engineering, Operating Systems, Data Structures & Algorithms, Programming Language Concepts, Mobile App Development, Cybersecurity.

Technical Skills

Languages: Python, TypeScript, JavaScript, Java, C++, SQL
Frameworks & Libraries: FastAPI, Pydantic, PyTorch, Torchvision, LangGraph, Scikit-Learn, Pandas, NumPy, Next.js, React, React Native, Expo, Streamlit, Plotly
Databases & Cloud: PostgreSQL, pgvector, Supabase, SQLite, Docker, AWS (EC2), Linux (Ubuntu), Git, CI/CD
Developer Tools & Concepts: VS Code, RESTful APIs, Pytest, Machine Learning, Computer Vision, Applied AI, Vector Databases

Projects

Ingredia: AI Food Recognition & Recipe Finder | *Python, PyTorch, Torchvision, Streamlit, Pandas, Pytest* GitHub

- Built a local food-recognition app using PyTorch and Torchvision (Faster R-CNN and MobileNetV3-Small) with a 200+ alias list to spot fridge ingredients without external vision APIs.
- Created a recipe engine over a 120-recipe catalog in Pandas that accounts for pantry staples, ingredient substitutions, and serving-size nutrition estimates.
- Built an interactive Streamlit UI with confidence sliders, manual item edits, and Pytest checks.

Pōtāre: Venue Discovery & Group Navigation App | *React Native, TypeScript, Expo Router, SQLite* GitHub

- Co-built a cross-platform venue app in an Agile team and extended it on Expo SDK 58 with TypeScript, a SQLite data layer, venue search helpers, and automated tests.
- Added Expo Router tabs, compass bearing guides, group meetup tools, and separate map views for native (`map.tsx`) and web (`map.web.tsx`).

Libro: Library Catalog & Room Booking Platform | *Next.js, React, FastAPI, PostgreSQL, Supabase*

- Built a full-stack library app with Next.js, React, Supabase Auth, and PostgreSQL for book search, item checkouts, and study room reservations.
- Created FastAPI endpoints with database transactions and concurrency checks to prevent double-booked rooms and keep inventory accurate.
- Connected the Google Books API to pull book details while tracking physical copy availability separately.

Apex: NFL Analytics & AI Scouting Platform | *Python, FastAPI, pgvector, Streamlit, Polars, Docker* GitHub

- Built a football analytics app in Python, Polars, Pandas, and SQLAlchemy processing 2,000+ NFL Next Gen Stats records to measure player separation and pocket pressure.
- Added an AI scouting assistant with Gemini Flash fallback and PostgreSQL `pgvector` search over 768-dimension embeddings.
- Deployed a FastAPI and Streamlit dashboard in Docker with matchup charts and ReportLab PDF reports.

Veritas: AI Fact-Checking Pipeline | *Python, LangGraph, FastAPI, Next.js 16, AWS, Docker* GitHub

- Built a multi-agent fact-checker in LangGraph with planner, search, citation, and claim-checking steps plus human review checkpoints and Pydantic validation.
- Streamed live verification progress and scores from an async FastAPI backend (Server-Sent Events) to a Next.js 16 UI.
- Packaged services with Docker and Pytest tests and hosted them on AWS EC2 (Ubuntu) behind Nginx.

Certifications

- **Professional Certificate in Generative AI for Software Development** – DeepLearning.AI
- **Completed Specialized Modules:** LangGraph Agentic Memory, Multi-Agent Systems (crewAI), MCP Application Architecture, Adaptive Agents – DeepLearning.AI

Experience

Restaurant Server | *Hospitality & Operations* Charleston, SC | 2020 – Present

- Manage concurrent guest workflows and synchronize front-of-house and kitchen operations in a high-volume dining environment to minimize order latency and resolve escalations under pressure.

Activities & Leadership

Coding/Tech Club, College of Charleston: Collaborate on technical challenges, hackathons, and peer programming initiatives.
Chess Club, College of Charleston: Compete regularly to develop strategic planning, foresight, and pattern recognition.