

Adrian Abraham

310-796-6740 | apla0607@gmail.com | [linkedin.com/in/adrnabrm](https://www.linkedin.com/in/adrnabrm) | github.com/adrnabrm

EDUCATION

California State University, Long Beach

Graduated May 2026

B.S. Computer Science (AI/ML concentration)

GPA: 3.97

TECHNICAL SKILLS

Languages: Python, C/C++, C#

Frameworks: FastAPI, TensorFlow, PyTorch

AI/ML: LLMs, Prompt Engineering, AI Agents, RAG, scikit-learn, pandas, NumPy

Tools: Cursor, Docker, Git, PostgreSQL, MongoDB, Supabase

EMPLOYMENT

Software Engineering Intern

Feb. 2026 – Present

FOX

Los Angeles, CA

- Architected an **automated AI prompt-revision pipeline** utilizing **DynamoDB** and **S3** to drive human-in-the-loop agent improvements for an internal Slack bot serving **80+ engineers and stakeholders**.
- Stabilized bot UI generation by replacing brittle LLM tool-calling with a deterministic **Markdown-to-Block Kit** pipeline, leveraging native markdown support to ensure highly readable, executive-ready outputs.
- Enhanced multi-agent **MCP servers** querying TV listings and Conviva QoE metrics, optimizing prompt instructions for precise tool execution while providing the Digital Video Platform org with immediate, deterministic visibility into stream health.
- Automated operations across **270+ repositories** via **Python** and **GitHub Actions**, building dynamic repo syncing and **LLM-driven** documentation updates to entirely eliminate manual tracking overhead.
- Built **AI-driven UI test automation** for Android TV clients using **Appium** and **Gemini Vision**, designing deterministic fallbacks to mitigate LLM hallucinations and drastically reduce false-positive test failures on physical devices.

Undergraduate Research Assistant

Sep. 2024 – Dec. 2025

California State University, Long Beach

Long Beach, CA

- Developed a **YOLOv8-based object detection pipeline** to study the sim-to-real gap in dynamic, visually complex environments; curated and annotated a custom dataset (35 classes) from simulated gameplay.
- Published and presented a first-author paper** on this pipeline at the **5th CS Conference for CSU Undergraduates**. [*ScholarWorks Link*](#).

Instructional Student Assistant

Jan. 2023 – May 2026

California State University, Long Beach

Long Beach, CA

- Mentored **200+ students** across **AI & Deep Learning** and Digital Logic courses by hosting office hours, clarifying complex technical concepts, and providing actionable feedback on logic errors.

PROJECTS

Accend | *Python, Flutter, FastAPI, Azure Speech SDK, Gemini API, Supabase*

- Engineered an **award-winning** English pronunciation app that won at the **CSULB Senior Design Expo** by replacing rigid language tools with granular, real-time articulation feedback.
- Designed an asynchronous **FastAPI** microservice to orchestrate low-latency audio streaming, minimizing data routing overhead to deliver sub-second, phoneme-level feedback.
- Integrated **Azure Speech SDK** to map spoken audio against expected phonemes, building a color-coded visual breakdown that highlights exact errors for self-correction.
- Leveraged the **Gemini API** to dynamically generate multi-lesson practice curricula tailored to user-selected topics, maximizing engagement over static courses.

tResearch (Tree-Search) | *Agentic AI, RAG, Gemini API, ChromaDB, Bright Data MCP*

- Built an **agentic AI** pipeline that takes a user query, auto-scrapes relevant academic papers via **Bright Data MCP**, and constructs a **knowledge graph** where each node is a summarized paper.
- Enabled per-node **RAG** using **ChromaDB** and **Gemini API**, allowing users to query individual papers through document embeddings — shipped at **CalHacks 12.0**.