

ARYAN ACHAR

✉ dal552511@utdallas.edu

✉ aryan.work2@gmail.com

🌐 linkedin.com/in/aryanachar

🐙 github.com/aryansvt

Education

University of Texas at Dallas

Major in Computer Science / Minor in Business Intelligence & Analytics

August 2024 – Present

Richardson, TX

Texas A&M University

Major in General Engineering

August 2023 – May 2024

College Station, TX

Relevant Coursework:

Programming Languages, Digital Logic & Computer Design, Data Structures & Algorithms, AI/Machine Learning, Linear Algebra, Systems Programming, Probability & Statistics, Operating Systems, Computer Architecture, Computer Networks

Technical Skills

Languages: Python, Java, C++, TypeScript, JavaScript, SQL

AI & ML: OpenAI API, LangChain, LangGraph, RAG, Structured Outputs, PyTorch, XGBoost, LightGBM, SHAP

Frameworks & Data: FastAPI, Pydantic, Pandas, Next.js, React, Fastify, PostgreSQL/PostGIS, MapLibre

Tools: Docker, Git, GitHub Actions, Vitest, npm, CMake, VS Code, Claude Code, Codex

Work Experience / Internships

UT Dallas — Spatial Data Science Researcher | Richardson, TX

September 2026 – Present

- Study healthcare access gaps in Dr. Alexander Michels' spatial data science group using population and facility data, building on PostGIS and access/egress modeling experience from LineFinder.
- Implementing common place-based spatial accessibility (PBSA) measures modeled on the PySAL access package, including floating catchment area and gravity models.

InnowhYTE — AI Engineer Intern | Remote

Summer 2026 – Present

- Built a full-stack conversational data analysis app (FastAPI, Next.js, Pandas, OpenAI structured outputs, Docker) that answers natural-language questions across multiple CSVs with text and chart responses.
- Engineered an LLM planning pipeline that validates model-generated analysis plans before deterministic Pandas execution, handling data cleaning, cross-file joins, and multi-turn context, with a 27-test regression suite.
- Contributing to a live agentic AI project in Fall 2026 after training in RAG, agent orchestration, evals, and LLMops.

UT Dallas — OIT Support Desk Analyst | Richardson, TX

July 2025 – August 2026

- Supported UT Dallas students, faculty, and staff in real time across phone, email, chat, and remote support channels.
- Troubleshoot AWS remote access, Duo, MS Teams, PeopleSoft, TeamDynamix, JIRA, Azure, and hardware/software issues.

Projects

LineFinder | TypeScript, Next.js, Fastify, PostGIS, MapLibre, Docker

September 2026

- Built an open-source, mobile-first DART transit navigation app with a custom RAPTOR-style routing engine, versioned GTFS ingestion, access/egress planning, and PostGIS storage for 1.9M+ stop-time records.
- Built realtime-ready infrastructure for GTFS-Realtime arrivals and replanning, plus scheduled transfer-risk ranking, in an installable PWA served through versioned Fastify APIs with schedule caching, testing, and CI.

Multi-CSV AI Data Assistant | Python, FastAPI, React, OpenAI API, Next.js, Docker

August 2026

- Built a full-stack AI data assistant where users upload multiple CSVs and ask plain-English questions, with the LLM limited to a validated analysis plan and all calculations run in Pandas, never model-generated code.
- Prevented join fanout errors in multi-hop joins by aggregating each measure at its source-table grain, backed by automatic relationship discovery that rejects unverified or many-to-many joins, and covered by a deterministic Pytest suite.

NBA Shot Quality Model | Python, Pandas, scikit-learn, XGBoost, LightGBM, SHAP

April 2026

- Built an end-to-end ML pipeline on 128K NBA shots to predict make probability, benchmarking five model families with cross-validation and tuning LightGBM to AUC 0.64, with SHAP to surface top predictors.
- Deployed a Next.js dashboard on Vercel with SHAP explainability, an interactive shot predictor, and a player leaderboard ranking 248 players by shot-making over expected, where 46 fell outside 95% chance intervals versus about 12 expected by luck.