

HARESH RAJ

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Education

The University of Texas at Dallas

Master of Science in Data Science and Statistics - GPA: 3.555

Aug 2025 – Present

Richardson, TX

Texas A&M University

Bachelor of Science in Computer Science, Minor in Statistics - GPA: 3.586

Aug 2022 – May 2025

College Station, TX

Technical Skills

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

Frameworks: Flask, React, Next.js

Data/ML: pandas, NumPy, scikit-learn, XGBoost, GeoPandas

Tools: PostgreSQL (Aurora), AWS, Git, VS Code, Vercel, Streamlit

Experience

AdiLabs.ai

Tech Intern

Feb 2026 – Present

Richardson, TX

- Modeling rare-disease progression using longitudinal patient event data, in partnership with AdiLabs.ai through the UT Dallas Biotech Club.
- Building knowledge graph and ontology-based approaches to link clinical concepts and improve structured patient monitoring.

Texas A&M Aggie Research Scholars Program

AI Data Processing Research Assistant

Aug 2024 – May 2025

College Station, TX

- Improved image classification accuracy for cotton morphology by labeling, cleaning, and preprocessing large-scale agricultural image datasets.
- Developed instance segmentation models and contributed to a mobile app enabling farmers to use the classifier in the field.

Projects

Signal Watch | *Python, Aurora PostgreSQL, Next.js, AWS, Vercel*

Jun 2026

- Built an FDA pharmacovigilance workbench computing PRR, ROR, and IC025 disproportionality statistics across 40,000+ drug/reaction pairs mined from 20M+ openFDA FAERS adverse-event reports.
- Deployed a full-stack analyst tool (Aurora PostgreSQL via OIDC/IAM, Next.js frontend) with signal triage, contingency-table drill-down, and an audit-tracked review workflow.

Foresight | *Python, XGBoost, GeoPandas, Streamlit*

Jun 2026

- Built an XGBoost classifier scoring healthcare access risk across all 774 local government areas in Nigeria by fusing DHS, HDX, GRID3, and WorldPop datasets.
- Caught and fixed a data leakage bug in feature engineering; ran Monte Carlo simulation to output low/mid/high cost-of-delay ranges instead of false-precision point estimates.

Frac Hit Mitigation | *Python, JavaScript, HTML CSS, Vercel*

Jan 2025 – May 2025

- Built an ML pipeline (HMM + XGBoost) to detect and classify frac hits in oil wells, achieving 90%+ classification accuracy.
- Deployed a full-stack Flask/React system for real-time time-series visualization and monitoring.

ProcrastiNATE! (Best Startup @ TAMUhack) | *JavaScript, HTML/CSS, AWS Comprehend*

Jan 2025

- Built a Canvas-integrated Chrome extension that gamifies assignment tracking, using AWS Comprehend for key-phrase extraction and deadline reminders.

Leadership / Extracurricular

UT Dallas Sports Analytics Club

Analytics Development Officer

Feb 2026 – Present

Richardson, TX

- Mentoring student teams on sports analytics projects by debugging Python code, improving data pipelines, and guiding end-to-end project execution.