Daniel Trinh

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EDUCATION

Texas A&M University College Station, TX
Bachelor of Computer Science | Computer Science Honors | Mathematics Minor May 2026
GPA: 3.79

PROFESSIONAL EXPERIENCE

Texas Department of Transportation College Station, TX
Machine Learning Researcher Aug. 2024 – Present

- Collaborating with TxDOT on AI-driven models to optimize construction planning, focusing on cost control.
- Conducted data preprocessing, collaborative filtering, and multi-instance learning to enhance model accuracy.
- Utilized SQL for data management and built predictive models to identify risk factors in project timelines.
- Developed a web interface to visualize model outcomes, supporting decision-making for construction projects.

Aggie Research Scholars Program College Station, TX
Machine Learning and Software Developer Aug. 2024 – Nov. 2024

- Preprocessed and cleaned economic data to support accurate forecasting across the beef production value chain.
- Achieved **94%** accuracy with regression models predicting economic performance metrics.

Smart Financial Credit Union Sugar Land, TX
Extern May 2023 – Aug. 2023

- Gained exposure to .NET, C#, and Blazor; understood basic applications of these technologies within financial software contexts and participated in collaborative software development discussions.
- Enhanced communication and leadership skills through active participation in business operations meetings.

University of Texas at Dallas Internship Remote
Business and Data Analytics Intern May 2022 –August 2022

- Employed SQL for data manipulation, contributing to preliminary modeling of corporate financial outcomes and supporting strategic decision-making processes.
- Collaborated with cross-functional teams to align data analytics initiatives with business goals, enhancing operational insights and reporting efficiency.

LEADERSHIP & ACTIVITIES

TIDAL: AI and Data Science College Station, TX
Officer of Outreach and Workshop Jan 2024 – Present

- Enhanced club engagement through organizing workshops, hackathons and securing sponsorships, handling relations with AWS, NVIDIA, and other partners; led initiatives to share machine learning knowledge and foster collaboration among members.

Project Lead, Aggie Coding Club College Station, TX
GroupMeet, Full Stack Project Aug. 2024 – Present

- Led development of a study scheduler platform inspired by When2Meet, integrating Google Calendar, Notion, and other APIs to manage study sessions with enhanced privacy controls.
- Managing development with Trello, and utilizing Express.js, PostgreSQL, React.js, and GraphQL to establish project foundations and ensure seamless integration of user data.

Project Manager, Aggie Data Science Club College Station, TX
TAMUSentiment, Sentiment Analysis and NLP Project Aug. 2024 – Dec. 2024

- Led development of an end-to-end platform for web scraping, NLP-driven sentiment analysis, and event detection.
- Coordinating data collection, preprocessing, and clustering of large-scale social media datasets using TF-IDF, BERT embeddings, and DBSCAN, ensuring data integrity and real-time classification.
- Leading a team of over **15** members, implementing spam filtering algorithms to enhance data relevance by **35%**.

Texas A&M Student Athlete, Powerlifting College Station, TX
Nationally Competitive Powerlifter Aug. 2024-Present

- Personally placed 2nd in the state of Texas representing Texas A&M, contributing to the school's ranking as one of the top 3 programs in the US
- Developed and executed goal-oriented strategies for competition preparation, emphasizing leadership, time management, and collaboration

PROJECTS

Social Media Engagement Predictor 2023

- Developing an NLP model to predict social media engagement using machine learning, focusing on data preprocessing, feature engineering, and model optimization for large-scale data.

QuantFrog: Earnings Call Prediction Tool 2023

- Collaborated on a machine learning application for earnings call predictions using sentiment analysis and LSTM models; implementing sentiment analysis model and webscraping

WealthWise: Financial Literacy App 2023

- Built a mobile app with React Native to gamify financial literacy with a small team, focusing on user engagement, database management, and implementing secure user authentication protocols.

Table Tennis RAG Program 2024

- Engineered a computer vision pipeline for professional ping pong analysis using Depth Anything, YOLOv8, and custom data filtering to achieve HPC-optimized performance under limited computational resources.
- Implemented a Retrieval-Augmented Generation (RAG) LLM chatbot for real-time strategy advice, leveraging OpenCV, Open3D, and API calls to produce 3D point clouds—facilitating in-depth gameplay analysis

The Odin Project: Full-Stack Web Development 2024 - Current

- Completing comprehensive coursework on HTML, CSS, JavaScript, and Git; developing practical full-stack web applications with a focus on responsive design and version control

SKILLS & COURSEWORK

PROFICIENT IN: C++, Java, Python, HTML, CSS, JavaScript, React, Haskell, PyTorch, Git, Numpy, Matplotlib, R.
Working experience in SQL, Firebase, PostgreSQL, SpringBoot, GraphQL, TensorFlow, Pandas, Node.js.
COURSEWORK: Programming, Data Structures and Algorithms, Statistics, Linear Algebra, Calculus III, Machine Learning, Design and Analysis of Algorithms, Data Science, Computer Organization, Programming Languages. CURRENT: Computer Systems, Software Engineering, Problem Solving Programming Strategies, Mathematical Probability.