TAYOUTH MALLA





SUMMARY

Graduate student in Advanced Data Analytics at UNT with hands-on experience in data engineering, applied AI, and cloud-based solutions. Skilled in Python, SQL, AWS, GCP, and Vertex AI, with projects spanning ETL pipelines, predictive analytics, and RAG-powered AI applications. Passionate about building scalable data workflows and AI-driven insights to solve real-world problems.

WORK EXPERIENCE

Verity Advisors | Data Engineering Intern

Feb 2025 - May 2025

- Engineered ETL pipelines with AWS Glue, Lambda, and Redshift to process 1M+ rows/week, reducing reporting latency by 40%
- Automated real-time stock data ingestion and reporting with Selenium & BeautifulSoup, delivering insights via AWS SES and Glue Workflows.
- Collaborated with the team to integrate structured/unstructured data into Redshift, improving data accessibility for decision-making.

UNT North Texas NOW! | Graduate Assistant

Jan 2025 - Present

• Conducted data-driven research on 150+ student program datasets; identified performance trends, improving retention strategies.

College of Applied & Collaborative Studies | *Teaching Assistant*

Aug 2024 - Present

• Facilitated BAAS curriculum delivery and student learning for over 100 students by providing academic support and guidance in data analysis, civic engagement, which increased their participation in courses by 15%

Upwork | Full Stack Software Engineer (Top-Rated)

Dec 2022 - Jan 2024

• Developed applications using Next.js, React.js, FastAPI, Django, Laravel, Python, and Nest.js, delivering cloud-based solutions with AWS, Firebase, GCP, and Vercel, which enhanced client satisfaction and contributed to achieving a 100% Job Success Score and recognition as a Top-Rated Freelancer within two months

OIIKA Inc. | Frontend Engineer

Oct 2021 - Mar 2022

• Implemented the user interface of a website to connect local food safety-certified cooks with an online marketplace to connect with customers in the community and sell homemade dishes, along with optimizing the website's performance.

Deerwalk Groups | Web Developer Intern

Dec 2019 - Aug 2021

• Created CI/CD pipelines leading to a reduction of deployment times from hours to minutes; streamlined processes enabled faster updates with zero downtime during critical operational periods.

TECHNICAL SKILLS

- Data Engineering: AWS (S3, Redshift, Glue, Lambda, SES), ETL Pipelines, Web Scraping (Selenium, BeautifulSoup)
- Data & Analytics: Python (Pandas, Numpy, Scikit-Learn, Matplotlib), SQL (MySQL, PostgreSQL, MongoDB), Tableau, Power
- AI & Applied ML: Vertex AI (Gemini 2.5, OpenAI APIs), Vector Databases, RAG Pipelines, LangChain / LangGraph
- Cloud & DevOps: Google Cloud Platform (Cloud Run, Storage Bucket, Vertex AI), Docker, Git, CI/CD, Vercel
- Software Development: JavaScript (React, Next.js, Node.js, NestJS), FastAPI, PHP, Java, Flutter

PROJECTS | LINK

LawgicBot – AI-Powered Legal Education Platform | LINK

- Built a full-stack platform with RAG-powered backend (FastAPI, LangChain) and Next.js frontend to provide legal education and automated PDF generation through an AI agent.
- Integrated conversational AI and real-time document creation, deployed on Google Cloud with zero data retention architecture.

Basketball Analytics – Tournament Prediction System | LINK

- Developed a prediction engine using 7 years of BartTorvik.com data (2,136+ team records) and ML models (Random Forest, Logistic Regression, SVM).
- Achieved 95.2% AUC for tournament qualification, 90.4% accuracy for upset detection, and 89.7% accuracy for deep-run predictions.

Big Data Health Risk Prediction | LINK

- Created a risk prediction system for heart attack likelihood using ML models (Random Forest, Logistic Regression, SVM) and deployed with FastAPI + Next.js + Vercel.
- Modeled on user-provided health metrics (age, cholesterol, stress, exercise, BMI), enabling real-time, AI-driven predictions.

EDUCATION