

Thirunarayanan Raman

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EDUCATION

M.S. in Business Analytics and Artificial Intelligence (STEM)

The University of Texas at Dallas

Aug 2023 – May 2025

GPA: 3.97

- **Coursework:** Advanced Statistics, Predictive Analytics, Database Management, Big Data, Machine Learning, A/B Testing, Deep Learning, LLMs

TECHNICAL SKILLS

Certifications: Microsoft Data Analyst Associate

Tools: Power BI, Power Apps, Power Automate, Excel

Languages: SQL (MySQL, HiveQL), Python, R

Data & Cloud: ClickHouse, DBT, Airbyte, Azure, Hadoop

AI/ML: Machine Learning, Deep Learning, Feature Engineering, Fine Tuning, GenAI, LLMs

PROFESSIONAL EXPERIENCE

Vibrant America, Associate Data Analyst | San Jose, CA

Aug 2025 – Present

- Built an analytics pipeline (**Airbyte** → **ClickHouse** → **DBT**), improving data reliability and reducing reporting effort by **40%**.
- Engineered a **Power BI** dashboard on turnaround times and workloads, cutting SLA breaches by **20%** through automated email alerts.

Federal Home Loan Bank of Dallas, Business Intelligence Intern | Irving, TX

Jan 2025 – May 2025

- Automated the fund request process using **Power Apps** + **Power Automate** + **MS SQL**, reducing manual entry by **60%** and accelerating SLA-compliant disbursements.
- Developed a **Power BI** dashboard to identify slow **SQL** queries and optimise indexing and joins, cutting execution time by **30%** and boosting system responsiveness.
- Built an app using **Power Platform** to evaluate loan eligibility using Azure Document Intelligence and Python, and real-time dashboard updates, reducing processing delays by **40%**.

UST, Data Science Intern | Aliso Viejo, CA

May 2024 – Aug 2024

- Analyzed sales trends and developed a forecasting model (**Prophet**; **RMSE: 2.68**), enabling **FY25** budget optimization.
- Deployed **XGBoost** models for **customer segmentation** and **CLV** prediction with **96%** accuracy, enabling marketing to identify high-value segments, optimise targeting, and boost retention campaigns.

Newell Brands, Associate Analyst | India

Apr 2022 – Jul 2023

- Developed a **Power BI** + **Power Apps** workflow to rationalize **100+** suppliers, saving **\$2.5M** in procurement through tail-spend reduction.
- Built **ETL** pipelines with **SQL** and **Python** to create feature-ready datasets for ad-hoc dashboards, cutting prep time by **30%** and enabling procurement insights.
- Streamlined supplier request process by integrating **Power Platform** with automated email updates to track request status, cutting submission time by **50%**.

Cognizant Technology Solutions, Data Analyst | India

Aug 2020 – Apr 2022

- Created a **Power BI** dashboard using **DAX** and **M-Query** to track energy delivery and pricing, revealing **12%** higher churn in undercut regions and guiding pricing strategy adjustments.
- Published a real-time **Power BI** dashboard on **ServiceNow** data, alerting high-priority SLA-risk tickets and sending automated emails via **Power Automate**, cutting breaches by **40%**.
- Automated data extraction and transformation from **Hadoop** using **HiveQL** scripts, reducing manual prep by **20%**, and built **Power BI** dashboards to deliver high-level business insights across energy operations.

PROJECTS

COSMO.ai – Conversational AI Chatbot for UT Dallas Website

Feb 2025 – Apr 2025

- Built a context-aware AI chatbot using **Mistral AI**, **LlamaIndex**, **Jina embeddings**, **FastAPI**, **MongoDB**, and **Qdrant** to deliver accurate (**87%**), consistent responses to student queries on compliance, programs, and policies.

SMART Inventory Optimization Model

Sep 2024 – Oct 2024

- Built a **SARIMAX** and **polynomial regression**-based demand forecasting model (**20%** improved accuracy) and applied **EOQ** optimization techniques to reduce excess inventory by **7.5%**, enhancing procurement and working capital efficiency.

Multi-Class Prediction of Cirrhosis Outcomes

Mar 2024 – Apr 2024

- Developed an **XGBoost** model for liver cirrhosis patient data with **83%** accuracy, deployed on **Databricks** using **MLFlow** to track the performance with scalable and automated pipelines for real-time analytics.