

# Nandhakumar Raj Shankar

AI Engineer | Data Analyst

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## SUMMARY

AI Engineer and Data Analyst who builds and evaluates LLM, ML and analytics systems, from Qlik chat-based analytics to RAG chatbots and LLM summaries verified by code. M.S. in Business Analytics & AI, UT Dallas (GPA 3.94).

## SKILLS

**Analytics & Data:** SQL, Python, R, Qlik, Tableau, Excel, KPI dashboards, ETL & data pipelines, Snowflake, Databricks, PostgreSQL, MySQL, MongoDB

**AI / ML / LLM:** RAG, agents, retrieval + reranking, embeddings, prompt design & guardrails, LLM evaluation (test sets), LlamaIndex, LangChain, scikit-learn, deep learning / transfer learning (CNNs), Hugging Face, Groq, Gemini, Ollama

**Engineering & Cloud:** FastAPI, Docker, pytest, Git, GitHub Actions / CI, REST APIs, React, Google Cloud, AWS, Azure, Salesforce Health Cloud & Marketing Cloud

## EXPERIENCE

**Machine Learning Engineer** | Community Dreams Foundation Feb 2026 - Aug 2026 · Remote

- Improved model ready data consistency by 33% by designing an AI ready data architecture integrating Snowflake, Salesforce Health Cloud and Salesforce Marketing Cloud.
- Improved journey completion rate by 42% by developing a Journey Progress Monitoring Framework in Snowflake that tracks patient and prospect movement across journey stages.

**Data Analyst** | Community Dreams Foundation Sep 2025 - Jan 2026 · Remote

- Cut executive time-to-insight from days of analyst requests to seconds by building a market intelligence platform with chat-based analytics via Qlik's native AI API.
- Mapped 180K+ prescribers across 140 specialties in Texas and New York, surfacing top prescribers (\$25M - \$100M+ in drug costs) and high-spend specialties to inform territory planning.
- Made every reported figure traceable and defensible by engineering a 4 stage, low-cost Qlik pipeline on free public data with full lineage and suppression-aware metrics.

**Operations Management Teaching Assistant** | UT Dallas Jul 2024 - Dec 2024 · Richardson, TX

- Raised project completion 25% over the previous semester in a 150+ student course by curating a machine learning project repository; improved the grade distribution 15% over the previous semester for a 63-student cohort by leading discussions on decision models and risk analysis.

**Research Intern** | Thiagarajar College of Engineering Feb 2023 - Jun 2023 · Madurai, India

- Reached 83% accuracy on a 6-class eye-disease classifier (including glaucoma and cataract) on fundus images by applying transfer learning on pre-trained CNNs and balancing training classes with SMOTE; published as co-author in IJETMS (2023).

**Data Analyst Intern** | Paragon Diagnostics Sep 2020 - Jun 2022 · Madurai, India

- Decreased reporting turnaround time by 25% by integrating sales, procurement and warehouse data through ETL workflows in Excel and SQL.
- Increased on-time delivery performance by 10% by developing KPI dashboards for order fulfillment, delivery timelines and inventory turnover.

## PROJECTS

**Safety Signal** | drug adverse-event screening tool [github.com/Nightwing03/safety-signal](https://github.com/Nightwing03/safety-signal)

- Flags disproportionately reported reactions in FDA adverse-event data, checks them against drug labels, and generates LLM summaries that code verifies before anyone sees them. Screening tool, not medical advice.
- Held-out label-matching precision 0.77 and recall 0.96 on 72 human-labelled pairs; 29 of 30 summary runs passed on the first attempt, with median latency of 1.1 - 2.2 s per drug.

**COSMO** | RAG chatbot for UT Dallas [github.com/Nightwing03/cosmo-rag-chatbot](https://github.com/Nightwing03/cosmo-rag-chatbot)

- Built the data pipeline (crawled and cleaned 2,000+ pages across 120 UTD subdomains) and the React frontend and co-built the retrieval layer of a chatbot that cites a source on every factual answer.

## EDUCATION

**M.S. Business Analytics & AI (STEM)** | The University of Texas at Dallas · GPA 3.94, Scholar with High Distinction 2023 - 2025

**B.E. Computer Science & Engineering** | Thiagarajar College of Engineering · CGPA 9.19/10, First Class with Distinction 2019 - 2023

## CERTIFICATIONS & TRAINING

**Certifications:** Databricks Certified Data Analyst Associate · Microsoft Certified: Azure AI Fundamentals