GOKUL PRASATH RADHAKRISHNAN

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Data Warehouse Engineer with MSc in AI & ML | 2+ Years' Experience in ETL, Azure, and Cloud Data Platforms | Skilled in Building Scalable, Reliable Data Solutions

Education

MSc Artificial Intelligence & Machine Learning, University of Birmingham. **Modules:** Neural Computation, Intelligent Data Analysis, Computer Vision, Evolutionary Computation.	09/2023 - 09/2024 United Kingdom
MSc, Data Science, Coimbatore Institute of Technology **Modules:** Statistics, Machine Learning, Natural Language Processing, Cloud Computing, Big Data (Hadoop).	07/2016 - 05/2021 India

Professional Experience

Data Warehouse Engineer, Holland and Barrett, United Kingdom   06/2025 - Present

- Supported strategic data initiatives aligned with the company's business roadmap.
- Collaborated with senior engineers on cross-functional projects.
- Covered for senior engineers to maintain business-critical deliverables.
- Built knowledge of enterprise data warehouse models to support wider projects.
- Assisted in platform modernisation:
  - Migrated Python UDFs to scalable solutions, improving performance.
  - Contributed to data warehouse reliability enhancements and upgrades.

Senior Data Engineer, Addend Analytics, Mumbai, India   08/2021 - 05/2023

- Built robust ETL pipelines for data integration across cloud and on-premise systems.
- Authored optimised stored procedures and performed data migrations and warehousing projects.
- Delivered process automation initiatives using Azure Data Factory, Logic Apps, and Event Hub.
- Designed and implemented CI/CD pipelines using Azure DevOps for automated deployments.
- Tuned complex SQL queries for performance and scalability.
- Collaborated with cross-functional teams to define and execute process improvement strategies.
- Administered and maintained Azure databases, including Azure SQL and Cosmos DB.
- Implemented Identity and Access Management (IAM) solutions, ensuring secure data access.
- Developed and executed cloud cost optimisation strategies across Azure services.

Skills

- **Programming & Scripting:** Python, R, T-SQL, Dynamic SQL, FastAPI, Matplotlib
- **Data Engineering & ETL:** Azure Data Factory (ADF), Azure Synapse Analytics, Azure Data Lake, Azure Event Hub, Azure Function App, Azure Logic Apps, Google BigQuery, AWS S3, AWS Lambda, Amazon Redshift, Matillion.
- **DevOps & Infrastructure:** ARM Templates, CICD, Azure DevOps, GitLab, Docker.

- **Databases & Storage:** Azure SQL, Azure Cosmos DB, SQLite, Data Warehousing, Data Modelling.
- **Machine Learning & AI:** Scikit-learn, PyTorch, TensorFlow, Keras, LangChain, Groq (LLaMA3), LLM, PySpark, Generative AI, Predictive Modelling.
- **Data Security & Governance:** IAM, Data Security Practices, Governance Frameworks.

Coursework and Project

1. **Interpretable Machine Learning for Customer Behaviour Prediction | [Link](#)**
   Developed a model to evaluate interpretability for algorithms. Designed metrics to balance accuracy and transparency, improving insights into customer behaviour predictions.

2. **Chat with SQL DB – Natural Language SQL Query App using Streamlit & LangChain | [Link](#)**
   Developed a dynamic Streamlit-based app to interact with SQL databases via natural language using LangChain's create_sql_agent and Groq's LLaMA3 model. Enabled support for both SQLite and MySQL with real-time query execution, a multi-session chat interface, and performance optimisation with caching and agent streaming callbacks.

3. **Optimization Algorithms for TSP – Evolutionary Algorithm | [Link](#)**
   Implemented and optimised Simulated Annealing and Genetic Algorithm for the Travelling Salesman Problem. Improved efficiency by 20% through parameter tuning, analysing performance on datasets of up to 100 cities.

4. **Data Analysis using Principal Component Analysis – Intelligent Data Analysis | [Link](#)**
   Experimented with preprocessing and dimensionality reduction of numerical datasets using Principal Component Analysis to analyse and draw conclusions about the datasets to facilitate model training.

5. **Data Warehousing in Azure SQL – Data Engineering**
   Designed ETL pipelines for multi-country data integration with robust auditing and failure notifications. Enabled incremental data loading and ensured 99.9% reliability.

6. **VSLA 2.0 – Data Engineering**
   Developed event-driven ETL pipelines with multi-language support using Azure Translator, achieving 99.9% reliability.

Courses and Certifications

- **Microsoft Fabric - The Complete Guide - Udemy**
- **Azure Databricks & Data Engineering with Spark** – Udemy
- **Microsoft: Azure Administration (AZ–104), Valid till Jan 2026**
- **Microsoft: Azure Relational Database Administration (DP–300), Valid till Feb 2026**

Leadership & Awards

1. **Shining Star Award – Q4, 2022,** Addend Analytics, India
   For consistent performance on complex projects (VSLA 2.0) and timely delivery with high dedication.

2. **Technical Training Sessions,** Addend Analytics, India
   Delivered 5+ technical training sessions on advanced data engineering topics like Data Warehousing, Advanced SQL, and CI principles to a team of 15 colleagues, improving team efficiency by 25%.

3. **Spot Recognition – Aug 2022,** Addend Analytics, India
   Recognised for the quality and timely delivery of the 'Navitas Semiconductor' project.