Deepana Dhakshinamurthy

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SUMMARY

Data Engineer with **9 plus years of expertise** in Data Engineering, MDM, Data Modelling, Platform Modernization, ETL, Cloud platforms (AWS, Azure and GCP), Performance Tuning and Data Visualization. Proven track record of delivering solutions for US clients across the **Insurance, Healthcare** and **Financial** industries

TECHNICAL SKILLS

- **Programming language**: Python, PySpark, SQL, HTML, C, C++, UNIX, Excel (VLOOKUP, Pivot, Charts)
- **Data Engineering Tools:** Power BI, Tableau, AWS Glue, ADF, Databricks, Airflow, Docker, SSIS, SSRS
- **Python Libraries**: Pandas, Numpy, Matplotlib, Scikit-learn, SciPy, Seaborn, Plotly, boto3
- **Database Management System:** SQL Server, Oracle, PostgreSQL, NoSQL, MySQL, Azure SQL, AWS RDS, Redshift
- **Project Management & Tools**: Agile (Scrum), SDLC, Jira, Azure DevOps, Confluence, TFS, GitHub, Tortoise, SVN
- **Office Suite:** Microsoft Word, PowerPoint and Excel, Google sheets, Microsoft 365, Outlook, OneNote

PROFESSIONAL EXPERIENCE

Fidelity Investments   *Oct 2025 to Present*
Data Analyst *(Snowflake, AWS)*   *Smithfield, Rhode Island*

- Led end-to-end data analysis for migrating key entities from the legacy PostgreSQL platform to Snowflake, streamlining transformation logic, improving data consistency by **30%**, and enabling a high-performance Snowflake data model
- Participated in **Scrum** ceremonies (Agile), managing backlog tracking in Jira, Confluence to meet sprint goals
- Enabled seamless application onboarding to **AWS CI/CD** pipelines through Terraform development, Jenkins pipeline configuration, and automation of deployment processes utilizing AWS S3, IAM, KMS, and Parameter Store
- Built Snowflake data pipelines using Snowpark for in-warehouse transformations, **Snowpipe** for automated ingestion

Colorado Department of Transportation   *June 2024 to Dec 2024*
Data Analytics Intern *(Azure SQL, SQL Server, Power BI, Python)*   *Denver, Colorado*

- Constructed interactive **Paginated Power BI reports** and **Dashboards** integrated with Azure SQL and **Power Automate** to analyze Colorado's state bridge inspections, enhancing financial decision-making and reducing **inspection delays by 25%**
- Performed **exploratory data analysis (EDA)** on bridge data structures and developed ETL pipelines to perform **data analysis** and integrate a new data model into existing system, improving data accessibility by 35%

Cognizant Technology Solutions   *July 2022 to June 2023*
Senior Associate *(MySQL, Oracle, MSSQL, Power BI, Tableau, Azure)*   *Chennai, India*

- Coordinated with stakeholders and cross-functional teams to deliver Data Engineering solutions across Insurance, Financial, and Healthcare domains, and supported team growth by mentoring over 5 junior engineers
- Engineered **ETL** pipelines using **Azure Data Factory**, Azure **Databricks**, Azure Synapse, **Azure Data Lake and SQL** procedures to extract, transform data (Healthcare, Insurance) reducing processing time by 40%
- Enhanced ETL workflows by reducing processing time **(Performance Tuning) by 50%** through indexing**,** SQL Server Profiler, Execution Plans**,** logs handling and Data Analysis using **SQL (Procedures, functions, views)** and **Excel**
- Automated **Python** scripts for data loading, transformation and orchestrated workflows using **Airflow** in **Docker** containers with **CI/CD** deployment via **GitHub Action** and **Azure DevOps**, resulting in **60% faster deployment** cycle

Associate *(SQL Server, SSRS, SSMS)*   *Nov 2017 to June 2022*

- Launched **Dimensional, Fact, Conceptual** and **Logical** data models using **ERWin** tool, developed normalized relational DB and resolved **70% of critical** issues in UAT, QA, PROD regions by implementing **data governance and quality standards**
- Orchestrated complex **SSIS** packages and advanced SQL (**Joins, subqueries, CTEs, window functions**) to extract and transform data from **sources** like CSV, XML, JSON applying control flow tasks, error handling, and transformations
- Crafted dashboards using Power BI (DAX, Power Query) and Tableau (LOD Expression) that highlighted **KPIs** for **financial** products, to streamline business operations, boosting operational efficiency by 30%
- Designed **20+ SSRS reports** including drill-down, parameterized reports reducing manual data analysis time by 40%

Merit Software Services Private Ltd   *Oct 2016 to Oct 2017*
SQL Developer *(SQL, SSIS, C#, SSRS)*   *Chennai, India*

- Created SQL queries, SSRS reports, and SSIS packages aligned with backend requirements of a web portal
- Automated a manual data loading process using SSIS packages, improving data loading efficiency by 40%

Capgemini   *July 2014 to Sep 2016*
Senior Software Engineer *(SQL Server, SSIS, SSRS, PLSQL)*   *Navi Mumbai, India*

- Analyzing data using SQL, Excel and reports generation through SSRS
- Enhanced File Transfer Process (FTP) by **40%** (utilized SSIS and replaced the usage of command prompt)

ACADEMIC PROJECT *(Northeastern University)*

Chatbot Implementation *(Snowflake, LLM, Streamlit)*   *Jan 2025 to Apr 2025*

- Built an interactive multi-turn **recommendation chatbot** with **Streamlit** UI, enabling personalized user experiences
- Integrated data from **AWS S3 into Snowflake via Snowpipe**, designed normalized models using **DBT** data models
- Implemented **LangChain + Ollama LLM** for natural language understanding and generated MiniLM embeddings stored in Snowflake and used **FAISS** for efficient semantic search and personalized recommendations

Diabetes Readmission Prediction System *(ML, Python, Big Query, GCP, Looker, Airflow, Docker)*   *Jan 2025 to Apr 2025*

- Conducted **statistical analysis** on patient records via hypothesis testing, correlation, feature selection to identify key factors
- Optimized and evaluated Machine Learning models (**XGBoost, Random Forest, Decision Tree**) using **MLFlow** and evaluated performance using key metrics like **MSE, RMSE, and R-squared** while utilizing **DVC** for data version control
- Implemented unit and integration testing for data transformation, model build pipelines using **Pytest**
- Persisted model prediction outputs to **GCP BigQuery** and built interactive Looker dashboards to monitor response time
- Orchestrated data workflows with Apache Airflow in **Docker** containers on **GCP VM**, deployed ML models on **GCP** buckets and managed CI/CD pipelines via GitHub Actions for streamlined deployment

EDUCATION

Northeastern University, Boston   *Aug 2025*
Master of Science in Data Analytics Engineering   *GPA: 4/4*
Coursework: Data Mining, Gen AI with LLM in Data Engineering, Machine Learning Operations (MLOps)
SRM Valliammai Engineering College, Chennai   *April 2014*
Bachelor of Engineering in Electrical and Electronics   *CGPA: 8.13/10*

ACHIEVEMENTS

Received **STAR** award, interim hikes, client appreciations for delivery excellence at Cognizant