Vadde Hemanth Sai Kumar

B.Tech - (2022-25)
Mechanical Engineering
Sree Vidyanikethan Engineering College

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Objective

Enthusiastic and detail-oriented data enthusiast with strong skills in SQL, Python, and relational databases. Experienced in building a complete retail sales data warehouse with optimized ETL and reporting capabilities. Passionate about translating raw data into actionable business insights .

Education

Sree Vidyanikethan Engineering College, Tirupati   2022-2025
BTech in Mechanical Engineering

SV Govt Polytechnic College, Tirupati   2019-2022
Diploma in Mechanical Engineering

TECHNICAL Skills

- **Database:** Microsoft SQL Server (SSMS 21)
- **Programming Languages**: Python
- **Data Visualization:** Power BI

Projects

- **Hospital Analytics (Personal Project)**   Github

  SQL, Power BI
  - Designed a **complete star schema data model** for hospital analytics using Fact Encounters, Fact Procedures, and multiple dimension tables (Patients, Payers, Organizations, Encounter Class, Date)
  - Transformed raw hospital data (encounters, procedures, payers, patients) into a **clean analytical model** using SQL (joins, data type conversions, surrogate keys, and incremental loads).
  - Implemented **industry-standard 30-day readmission logic** using advanced DAX (row context + filter context), identifying repeat admissions per patient.
  - Built custom DAX measures for patient trends, claim cost analysis, coverage gaps, encounter duration, and payer-level performance metrics.
  - Built an interactive **Power BI dashboard** with visuals for encounter trends, encounter type distribution, encounter duration, procedure analysis, payer performance, unique patients per quarter, and repeat/returning patients.

- **Retail Sales Analytics – Data Warehouse (Personal Project)**   Github
  SQL
  - Designed a complete Retail Sales Data Warehouse using SQL with fact and dimension tables (star schema).
  - Performed extensive **data cleaning** on raw product, store, date, and sales files to remove inconsistencies and standardize values.
  - Implemented SQL-based **ETL** logic, including **incremental load** processes for dimension updates.
  - Built dimensional tables (DimProduct, DimStore, DimDate) and a FactSales table.
  - Executed **advanced SQL analytical queries** to identify top products, store performance, region performance.
  - Ensured data accuracy and integrity by applying primary keys, foreign keys, and enforcing referential relationships across tables.
  - **Optimized SQL queries** using indexing strategies and efficient joins to improve query performance on large transaction datasets.

Positions of Responsibility

- **Team Head**, Hospitality Team — SVEC Tirupati
- Managed team of 15 for guest arrangements during annual college fests, ensuring smooth logistics.

Achievements

- Ranked in top 10% of Diploma and B.Tech coursework.
- Volunteered in college events (data entry, reporting, presentations).