

## Venkata Siva Naga Babu Thokala

MTech, Data Engineer

### CAREER SUMMARY

Experienced Data Engineer with over two years of expertise in managing and maintaining multiple databases using MS SQL Server. Skilled in designing and implementing efficient database schemas, tables, stored procedures, and triggers to meet specific business requirements and ensure data normalization. Proficient in developing and managing robust ETL processes to extract, transform, and load data into the centralized data warehouse for analysis and reporting. Demonstrates a proactive approach in ensuring data quality and consistency within the data warehouse through comprehensive data quality checks. Experienced in optimizing database and data warehouse performance through indexing, partitioning, and query tuning techniques, resulting in enhanced efficiency and response times.

Seamlessly integrates data from multiple systems and sources into the data warehouse using effective data pipeline design and development practices. Proficient in utilizing PowerBI, Excel, and Python for insightful reporting, visualization, data analysis, cleaning, and machine learning tasks, enabling data-driven decision-making. Collaborative team player experienced in working closely with developers to understand their data requirements and ensure seamless integration into applications for optimized performance and functionality. Provides expert support and maintenance for web applications, delivering accurate insights, customized reports, and visualizations to support a user base of over two thousand business users.

Actively keeps up to date with the latest advancements in data engineering, SQL Server, Python, and data analysis techniques to drive innovation and enhance processes. Facilitates the entire life cycle of a data science project, including data extraction, data pre-processing, feature engineering, dimensionality reduction, algorithm implementation, and validation. Proficient in analysing missing data, exploring correlations and similarities, implementing dummy variables, and utilizing imputation methods such as the iterative imputer in Python. Highly skilled in data manipulation, data preparation, normalization, and predictive modelling, resulting in improved efficiency and accuracy of models.

**2 years+ experience, 2 years+ with QubeRoot Analytics**

### Area of expertise

- Database management (MS SQL Server)
- ETL processes and data warehousing
- Data quality assurance and consistency
- Database performance optimization
- Reporting and visualization (PowerBI, Excel)
- Data analysis (Python)
- Collaboration with developers
- Web application support and maintenance
- Data manipulation and preparation

### EDUCATION

Master of Technology, Traffic and Transportation Planning, Nit Calicut, India	2019
Bachelor of Engineering, Civil Engineering, VRSEC, India	2017

## TECHNICAL SKILLS

Databases	SQL Server, MySQL, PostgreSQL
Data Warehousing	ETL Processes, Data Integration, Data Warehouse Design, Data Warehouse Maintenance
Test Scripting	Intra-Database Testing, ETL Process Testing, Data Warehouse Testing
Data Visualization	Microsoft power BI, seaborn, Excel
Version Control & API Development	Git, Flask
Languages /Libraries	Python: pandas, numpy, scikit-learn, scipy, matplotlib,seaborn, tensorflow Auto-EDA: DataPrep, pandas-profiling, dtale, autoimpute,
Database Management	Indexing, partitioning, Query tuning techniques
Statistics/ML	Exploratory Data Analysis, Supervised Learning, Unsupervised Learning, Feature Engineering, Statistical Tests, Sampling Methods, Model Tuning/Selection
Collaboration	Teamwork, Communication Skills
Reporting Solutions	Development and implementation of data and reporting solutions

## ACHIVEMENTS

**Performance excellence Award** for “outstanding performance and long-lasting contributions” from QubeRoot Analytics LLC.

## WORK EXPERIENCE

Data Engineer | QubeRoot Analytics LLC | November 2021 – Present

1. Successfully managing and maintaining databases using MS SQL Server, ensuring optimal performance, data integrity, and real-time transactional operations.
2. Developed robust ETL processes, extracting, transforming, and loading data into the centralized data warehouse for analysis and reporting.
3. Utilizing SQL server scripts to regularly update and maintain data within the data warehouse, ensuring it is constantly up-to-date and readily available for business intelligence purposes.
4. Implemented comprehensive data quality checks to ensure data consistency, accuracy, and reliability within the data warehouse, providing trustworthy data for decision-making.
5. Design and implementation of efficient database schemas, tables, indexes, stored procedures, functions, and triggers to meet specific business requirements and ensure data normalization.
6. Continuously monitor and optimize database and data warehouse performance, employing indexing, partitioning, and query tuning techniques to enhance efficiency and response times.
7. Seamlessly integrate data from various systems, databases, and external sources into the data warehouse, using effective data pipeline design and development practices.
8. Investigated and resolved data-related issues in a fast-paced startup environment, maintaining data consistency and identifying performance bottlenecks.
9. Proficiently performed data extraction, transformation, and loading (ETL) tasks, standardizing data formats and aligning data across databases.
10. Collaborated with stakeholders, developers, and production teams to understand business needs and provide database solutions.

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11. Provides support for data-related tasks in ongoing maintenance and enhancements of the web application, catering to a team of over fifty developers and serving a user base of 2000 business users.
12. Utilized PowerBI and Excel for insightful reporting and visualization and generating comprehensive reports based on integrated data.

**Job Title:** Assistant professor

**College:** Deveneni Venkata Ramana & D H R Mic College of Technology

**Duration:** July 2019 – January 2021.

- Training and placement cell in charge of the department.
- Member of Internal Quality Assurance Cell in the MIC College.

## PROFESSIONAL DEVELOPMENT

Full Stack Web Development Course

**Institute:** Physics Wallah.

**Duration:** October 2023 – present.

**Key Technologies Learned:** React, Node.js, Express.js, Next.js

**Additional Skills:** HTML, CSS, JavaScript, TypeScript

## MTECH PROJECT WORK

**Place:** - Nit Calicut

**timeframe:** - June 2018 – May 2019

Automated the calibration and validation process of simulation models using python:

- Worked mainly in Python and PTV Vissim during my master's degree project. With the help of Python, I automated the calibration and validation process of a Roundabout model created in Vissim by using win32com.Client package and other data science modules like Scipy and Numpy.
- **Project Title:** Identifying the Effective Type of Roundabout Based on Traffic Conditions using Simulation modelling in PTV VISSIM.
- **Description:** Micro-Simulation Modelling of Roundabouts done using PTV VISSIM. The main outcome of the project is to find the efficiency of roundabouts and to increase the efficiency of roundabouts by introducing new layouts.
- **Applications:** This type of simulation project is mainly used to find the efficiency of upcoming new developments and used while converting existing intersections into roundabouts. This type of planning will help in creating efficient traffic flow.

## PERSONAL STRENGTHS

- Positive attitude
- Sincere and hard working
- Committed to Lifelong learning.
- Ability to work under pressure.
- Reliable and Consistent

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## OTHER INFORMATION

- Qualified GATE in first attempt with 633 SCORE
- Excellent Problem-Solving Skills
- Adaptability to any kind of environment

## CERTIFICATIONS

- Python boot camp
- Python for everybody course authorized by University of Michigan
- MySQL boot camp
- Master in Microsoft Power BI boot camp
- Data science and Machine learning boot camp