

# VISHNU CHARUGUNDLA

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## Education

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**Syracuse University, School of Information Studies**

**May 2025**

*Master of Science in Applied Data Science*

*Syracuse, New York*

**Relevant Coursework:** Introduction to Data Science, Quantitative Reasoning, Applied Machine Learning, Database Management, Business Analytics, Scripting

## Experience

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**Modak Analytics**

**July 2021 - July 2023**

*Data Engineer — Software Development Engineer*

*Hyderabad, India*

- Designed and implemented data pipelines using StreamSets and Hadoop, facilitating seamless data cleaning, transformation, and ingestion from diverse sources to cloud platforms.
- Consulted as a Subject Matter Expert and Data Engineer for a global bio-pharmaceutical firm, leading the development of 150 curation pipelines for clinical trial data, ensuring data masking, integrity, and analysis.
- Constructed a Data Vault for life-science data using Hive and PostgreSQL, improving data accessibility and enabling faster retrieval and analysis for research and development.
- Orchestrated end-to-end ETL procedures as a Data Engineer, ensuring efficient data transfer to various destinations and enabling comprehensive data analysis.
- Initiated data curation and profiling initiatives, optimizing cloud utilization and resulting in a 25% cost reduction, while managing Application Lifecycle using ALM tools for multiple projects.

## Leadership

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**Graduate Teaching Assistant, IST 253 - Introduction to Networks and Cloud**

**August 2023 - Present**

- \* Developing and revising assessments, quizzes, and lab materials to align with course objectives
- \* Grading assignments and assessments, providing constructive feedback to help 83 students succeed in the coursework
- \* Conducting office hours to address student inquiries facilitating communication between students and the professor

## Projects

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**Optimizing Electricity Demand for eSC | R, RStudio, Shiny**

**November 2023**

- \* Led a data-driven initiative for eSC, an energy company serving residential properties in South Carolina and a portion of North Carolina
- \* Merged diverse data sources, consolidating Parquet and CSV datasets, resulting in a comprehensive dataset with approximately 171 columns and 12,000,000 rows. Executed meticulous data cleaning procedures to boost data quality and reliability
- \* Engineered and implemented machine learning models (Linear Regression, Random Forest, XGBoost) achieved a 80% increase in accuracy, validated through metrics such as Mean Absolute Error (MAE) and R-squared
- \* Devised and deployed an interactive Shiny application for real-time data visualization, increasing decision-making processes for the client

**DBMS for Music Streaming Service | SQL, Microsoft Azure Data Studio, Power Apps**

**November 2023**

- \* Collaborated in the development of a robust Database Management System (DBMS) for a music streaming service, involving millions of users using Azure Data Studio and SQL
- \* Played a key role in designing and optimizing the database structure for efficient track metadata storage, retrieval, and streaming statistics analysis
- \* Implemented user activity log and listening history functionalities, improving the understanding of user behavior and aiding sponsor decisions
- \* Conducted in-depth analytics to unveil valuable insights, including user engagement by genre and subscription type, artist popularity across different age groups, track popularity, session duration by time of day, genre diversity amongst users, and correlation between subscription type and genre preference

## Technical Skills and Certifications

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**Certification:** Programming, Data Structures and Algorithms using Python

**Languages:** R, Java, Python, Scala, SQL, Linux

**Developer Tools:** VS Code, Eclipse, Google Cloud Platform, MongoDB, Hive, Git, Spark

**Microsoft Tools:** Excel, Power BI, PowerPoint, Word, Outlook, Access

**Soft Skills:** Adaptability, Time management, Presentation