

VISHNU CHARUGUNDLA

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Education

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

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

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

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 2020

- * 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

Certification: Programming, Data Structures and Algorithms using Python

September 2019

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