Akhila Kudupudi

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github.com/Akhila-kudupudi

Summary

Results-driven Data Analytics Engineer with over 2 years of industry experience at Tata Consultancy Services (TCS), and academic specialization in data modeling, knowledge graphs, and cloud databases. Proven success in building and visualizing complex entity relationships using AWS Neptune and Neo4j. Skilled in ER Studio and MagicDraw for logical data modeling and semantic graph structuring. Hands-on experience developing and optimizing ETL pipelines using SQL, PySpark, and AWS Glue. Adept at transforming unstructured datasets into enterprise-ready schemas, and delivering actionable insights via Power BI and Tableau dashboards. Passionate about bridging data design and real-world application to drive scalable business solutions.

Education

George Mason University, Fairfax, VA , MS in Data Analytics Engineering   Aug 2023 – May 2025

- GPA: 4.0/4.0
- **Coursework:** Focus Areas: Machine Learning, NLP, Data Visualization, Cloud Computing ; Tools: Python, SQL, Tableau, AWS, Neo4j

Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad, India   July 2017 – July 2021

- B.Tech in Electrical and Electronics Engineering
- GPA: 3.6/4.0

Experience

DevOps & JDA WMS/TMS Consultant, Tata Consultancy Services (TCS) – Chennai, India   Aug 2021 – Aug 2023

- Automated CI/CD pipelines using Azure DevOps and shell scripts
- Implemented JDA WMS & TMS solutions for warehouse and transportation operations in Woolworths (Australia & New Zealand)
- Built freight billing, dock scheduling, and reporting modules using IBM Cognos and SQL
- Handled 3PL logistics tickets via ServiceNow, and collaborated using GitHub & Putty
- Received 4× "Star of the Sprint" awards for Xdock development, ARDC reports, and Hoxton Park DC GoLive
- **Tools:** Azure, Shell Scripting, SQL, Oracle SQL Developer, Agile.

Publications

InfoTech Assistant: A Multimodal Conversational Agent for IT Web Portal Queries   Dec 2024

Surya Gadiraju,Duoduo Liao, *Akhila Kudupudi*, Santosh Kasula, Charitha Chalasani

IEEE Xplore | DOI:10.1109/BigData62323.2024.10825668

Projects

InfoTech Assistant: A Multimodal Conversational Agent   github.com/Infotech-Chatbot

- Developed an AI-powered chatbot for IT web portal queries using NLP and multimodal interaction
- Published with IEEE; supports user queries with voice, form input, and intelligent fallback
- Tools Used: Python, Meta LLaMA, Flask, HTML/CSS, JSON, Speech Recognition

Augment Linkage: Evidence and Exploration   github.com/LinkageEvidence

- Investigated fentanyl trafficking networks using graph databases and linkage evidence
- Built visual dashboards to explore corporate connections using Gremlin and Cypher

- Tools Used: AWS Neptune, Neo4j, Tableau, Gremlin, Cypher, Python

Car Crash Analysis Pipeline   github.com/Car Crash
- Built ML pipeline for crash data analysis; explored trends and modeled injury risk
- Cleaned 170K+ records and visualized insights via Tableau dashboard
- Tools Used: PySpark, Google Colab, MongoDB, Tableau

Technologies

Languages & Scripting: C, Python, SQL, R, Shell Scripting, Unix

Tools & Platforms: AWS Neptune, Neo4j, Tableau, Power BI, Azure DevOps, GitHub

Databases & Reporting: Oracle SQL Developer, Excel, IBM Cognos, MongoDB, Databricks

Dev & Agile Tools: JIRA, Confluence, ServiceNow, Putty, Agile Scrum