Hemasree Uppaluri Venkata Syamala
uvs.hema@gmail.com | 602-813-8372 | LinkedIn| GitHub

EDUCATION

Master's of Science in Information Technology **Aug'22 – May'24**

Arizona State University | Arizona US

Coursework: Cloud Computing, Data Visualization, Statistical Machine Learning, Big Data Analytics, Project Management, Deep Learning, Natural Language Processing

TECHNICAL SKILLS

Programming: Python, SQL, HTML, CSS

Frameworks/Tools: Pandas, NumPy, Scikit-learn, NLTK, Flask, Tableau, Power BI, SSIS, Git, VS Code

Cloud Technologies and Databases: AWS (S3, EC2), Azure, Postgresql, Oracle, Microsoft SQL Server, Google Big Query, Google cloud functions

AI Practices: Natural Language Processing (NLP), Sentiment Analysis, Text Classification, Regression Analysis, Data Visualization, Predictive Modeling, Fast API'S , Pydantic Models, Kedros

PROFESSIONAL EXPERIENCE

Data Analyst , Rogue Lumen **March 2025 – Present**

- Built an end-to-end sentiment analysis pipeline in Python using NLP models to process multi-source API data, improving emotion classification accuracy by 30%.
- Established automated ingestion and ETL workflows across external APIs, BigQuery, PostgreSQL, and Neo4j, reducing manual processing by 60% and accelerating reporting by 25%.
- Developed real-time dashboards to track sentiment trends and operational metrics, increasing user engagement by 25% and supporting faster, data-driven decisions.
- Implemented scheduled Neo4j data extraction using Python and LLaMA tokenization for Ziosk, improving data freshness and update efficiency by 30%.
- Refactored high-complexity SQL queries and ETL workflows, accelerating data retrieval speeds by 40% and reducing incident resolution time by 25% through optimized system logic.

Data Analyst Intern– AI Development, Arizona State University **May 2024 – Feb 2025**

- Collected and integrated data from 15+ nuclear power data centers across U.S. states, creating a centralized repository to support regulatory reporting and performance benchmarking.
- Developed a scalable data pipeline to automate extraction from Excel, transformation in Python, and storage in MySQL and AWS S3,reducing manual processing time by 70%.
- Built AI-based email automation that converted natural language into markdown emails, reducing manual communication time by 40%, and scraped manufacturer data using Scrapy, increasing data acquisition volume by 42% while maintaining compliance for Ara.
- Streamlined secure, scalable workflows for multi-source data ingestion and automation, improving reporting speed, system efficiency, and compliance across client platforms

Data Analyst , Tata Consultancy Pvt LTD | Hyderabad, India **June 2019 – July 2022**

- Designed a suite of 100+ interactive Tableau dashboards, automating real-time service metric tracking and eliminating 50% of manual reporting overhead.
- Refactored high-complexity SQL queries across 15+ client projects, accelerating data retrieval speeds by 40% and optimizing database performance.
- Spearheaded cross-functional data audits to identify billing discrepancies and streamline ITSM workflows, yielding a 20% revenue uplift.
- Engineered data enhancement frameworks that reduced incident resolution time by 25%, improving system reliability and stakeholder trust.
- Standardized reporting protocols for TPG Telecom, transforming fragmented datasets into actionable executive insights through scalable visualization logic.

PROJECTS

Stock Price Analysis with Machine Learning **Dec'24**

- Developed a sentiment analysis pipeline using **NLTK and Hugging Face Transformers** to process financial news and social feeds. By quantifying market sentiment,improved the correlation between news signals and short-term price movements, increasing prediction accuracy over traditional baseline models..

Housing Market Analysis Using Neo4j Graph Database **Nov'24**

- Designed a **Neo4j** graph database model to analyze SF housing process data, capturing relationships between properties, neighborhoods, and pricing trends. Leveraged graph queries to uncover insights and visualize housing market patterns for better decision-making.