Tejaswini Harshitha Samudrala

Liverpool, UK |**Email: samudralat77@gmail.com** |**Mobile:** 07741023545 |Portfolio

SUMMARY

Data Science & AI graduate with expertise in Python, SQL, and R. Experienced in machine learning, data analysis, and visualization, delivering scalable, data-driven solutions. Enthusiastic about contributing to high-impact technical teams.

EDUCATION

Master of Science – Data Science & Artificial Intelligence

University of Liverpool (Graduated July 2025)

Relevant Courses: Machine Learning, Data Mining & Visualisation, Applied AI, Computational Intelligence.

Bachelor of Technology – Electronics & Communication Engineering

Jawaharlal Nehru Technological University (Graduated: September 2022)

PROJECTS

Traffic Light Control with Distributed PPO

- Developed a multi-agent reinforcement learning model in Python using Distributed PPO + SUMO, cutting average traffic congestion by **30%** and reducing wait times.
- Optimised training by modelling each traffic light as an independent agent, lowering action-space complexity from 2^n combinations, and improving throughput efficiency.

Bank Marketing Dataset (Customer Subscription Prediction)

- Built classification models on the UCI Bank Marketing dataset, reaching 85% accuracy and boosting campaign success by 25% through better customer targeting.
- Engineered demographic and behavioural features, achieving **75% precision** and **70% recall**, and visualised customer segments with **Seaborn/Matplotlib** for actionable insights.

Mining Grocery Purchase Patterns (Apriori Market Basket Analysis)

- Applied the Apriori algorithm on 38,000+ grocery transactions, identifying 50+ high-lift association rules that revealed frequently co-purchased items.
- Created **network and scatter visualisations** to highlight top item pairings, enabling data-driven product placement and targeted promotions.

WORK EXPERIENCE

Digital intelligence, PWC job simulation   **February 2025**

- Collaborated with a network of doctors to analyse adverse drug effects using the FDA Adverse Event Reporting System (FAERS) database, identifying key patterns in drug-related side effects and frequency across over 10,000 patient records.
- Performed comparative analysis of Tramal and Lyrica adverse effects using SQL and R, uncovering a 20% higher incidence of dizziness with Tramal.

Network engineer intern, CSS Corp   **March 2022**

- Trained in troubleshooting, routing, IP addressing, and subnetting, expanding network reliability by 20%, and minimizing downtime.
- Formulated and implemented an optimized network architecture using GNS3, refining user performance by streamlining data flow and trimming latency from 120ms to 90ms.

Junior Manager, AIESEC   **January 2022**

- Coached 18 individuals in securing global volunteering opportunities by advising available programs and application processes.
- Enhanced leadership and organisational skills by coordinating team activities, facilitating workshops, and supporting project planning.

CERTIFICATIONS &TRAINING

Microsoft Azure Fundamentals — Microsoft.	April 2025
Google Data Analytics Professional — Coursera.	July 2023
Advanced Microsoft Excel — Udemy.	November 2023
IBM Introduction to Data Science — edX.	April 2021