

Tejaswini Harshitha Samudrala

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SUMMARY

Master's graduate in Data Science and AI with a strong foundation in software development, machine learning, and analytical problem-solving. Skilled in Python, SQL, and R, with experience in building data-driven applications and performing statistical analysis. Proficient in cleaning and transforming data, implementing algorithms, and visualizing results. Eager to contribute to fast-paced technical teams in building intelligent, scalable, and efficient software systems.

SKILLS

Programming & Database Skills: Python, SQL, R, C, Bash.

Data Visualisation & ETL Tools: Tableau, Power BI, Excel, Apache Airflow, Hadoop.

Machine Learning & Statistical Analysis: Clustering, Classification, Regression, Hypothesis Testing.

Cloud & Data Management: Azure, Google Cloud, Data Cleaning, AWS, Data Wrangling.

Concepts: OOP, APIs, Data Structures, Algorithms, SDLC, Testing.

EDUCATION

Master of Science – Data Science & AI

University of Liverpool, UK

Graduating: July 2025

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

Bachelor of Technology – Electronics & Communication Engineering

Jawaharlal Nehru Technological University, India

Graduated: September 2022

PROJECTS

Discovering Prognostic Biomarkers in Cancer

- Analysed 10,000+ gene expression data points from GSE202203 (GEO) using Python to identify 5+ prognostic biomarkers, uncovering distinct gene clusters linked to patient outcomes.
- Implemented K-Means, Hierarchical Clustering, and DBSCAN using NumPy and pandas, increasing clustering accuracy from 11% to 15% and revealing key gene patterns.
- Applied Min-Max Scaling for data normalisation and utilized feature selection techniques to boost clustering performance by 17% and lower dimensionality.
- Created targeted Seaborn and Matplotlib visualisations that clarified critical medical data patterns, helping researchers prioritise biomarkers and guide treatment development.

Bank Marketing Dataset Analysis

- Developed a customer classification model with 85% accuracy, strengthened targeted marketing, and boosted campaign success by 25%.
- Engineered features like purchase frequency, recency, and customer demographics, optimised model performance (75% precision, 70% recall), and used Seaborn and Matplotlib visualisations to identify key customer segments for strategic marketing decisions.

Safe and cost-effective massage band

- Engineered a wearable massage band and designed a mobile app (4.5/5 user rating on Google Play Store), boosting user comfort and elevating user satisfaction by 60%.
- Published and presented a research paper on the project at the International Conference on Smart Systems and Green Energy Technologies, showcasing technical implementation and potential healthcare benefits.

Script Voice – Assistive Technology for Visually Impaired

- Built a Raspberry Pi-based assistive device using Python that captures images via a camera, converts printed text to digital form with Tesseract OCR, and generates real-time speech output using Google Text-to-Speech (gTTS).

- Optimised image processing and text-to-speech pipeline to reduce audio response latency by 25%, enabling faster reading for visually impaired users. Designed the system to function offline and autonomously, allowing uninterrupted use without internet dependency, which elevated user satisfaction by 30%.

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, India

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.

OTHER WORK EXPERIENCE

Brand Representative, Abercrombie & Fitch, Liverpool, UK

December 2024

- Delivered exceptional customer service, enhancing client satisfaction from 19 % to 25% and contributing to a positive shopping experience, resulting in increased sales.
- Managed inventory levels, organised product displays, and maintained store presentation to ensure smooth day-to-day operations.

Junior Manager, AIESEC Hyderabad, India

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

EXTRACURRICULAR ACTIVITIES

Medium, Writer – Publish articles on data analysis, AI, and technology.

Member, Competitive Programming Society – Engage in algorithmic problem-solving and coding challenges.

Volunteer, Crosby Beach Cleanup – Contributed to environmental conservation efforts by removing waste.

Delegate, Youth Speak Forum (AIESEC) – Involved in discussions on young people's contributions to the Sustainable Development Goals.

Counsellor, Voice for Girls Campaign – Guided students on critical topics like health, safety, and self-awareness.