

# Vamsi Mudila

## SUMMARY

Results-driven **Data Analyst** with 3+ years of experience turning complex data into clear, actionable insights. Skilled in **SQL, Python, Power BI, Tableau**, and building **ETL pipelines, automated dashboards, and predictive models**. Experienced in commercial and public-sector environments, supporting teams and senior managers with accurate GDPR-compliant data analysis. Strong at simplifying technical information for non-technical stakeholders and creating scalable data solutions that improve performance and decision-making.

## EXPERIENCE

### EXECUTIVE OFFICER, DEPARTMENT FOR WORK & PENSIONS

**March 2021 – July 2021**

- Served as the **AI SPOC** for a 200+ staff office, providing AI support to caseworkers, team leaders, and senior managers; created prompt templates and workflows that increased productivity by **55%** and reduced admin work by **80%**.
- Analysed **50,000+ case records** to identify trends in processing times and error patterns; presented insights that helped managers improve resource allocation and increased throughput by **15%**.
- Built automated **performance dashboards** tracking KPIs (accuracy, case ageing, workflows), reducing reporting time by **40%** and supporting faster decision-making.
- Acted as the main contact for internal clients, translating operational issues into clear analytical tasks and ensuring **100% GDPR-compliant** handling of sensitive data.
- Supported leaders with bottleneck analysis and data-driven process improvements, improving consistency across multiple teams.

### DATA ANALYST & FREELANCE CONSULTANT, ASQUARE

**August 2021 – August 2022**

- Led analytics projects integrating CRM, sales, inventory, and support data to identify inefficiencies and support strategic planning.
- Built automated **Python + SQL ETL pipelines**, improving data accuracy to **98%+** and reducing reporting time by **60%**.
- Developed **Power BI dashboards** on customer behaviour, supply-demand trends, and operational KPIs for cross-functional teams.
- Delivered training and user documentation to improve data literacy and reporting consistency.
- Designed GDPR-compliant tools and custom metrics aligned with managerial requirements.
- Continued consultancy support during MSc studies, maintaining dashboards and providing ad-hoc analysis.

### ANALYST, CAPEGMINI

**March 2021 – July 2021**

- Analysed automotive telemetry data to assess system performance and regulatory compliance.
- Built anomaly-detection workflows and automated SQL reports, reducing QA review time by **40%** and improving data reliability.
- Created **real-time Tableau dashboards** for component health and failure trends, supporting faster engineering decisions.
- Worked in Agile sprints to develop scalable performance metrics and data solutions based on QA requirements.
- Consolidated diagnostic data into clear insights that improved system optimisation efforts.

## SKILLS

- **Programming Languages:** Python (Pandas, NumPy, scikit-learn, Matplotlib for basic visualization), SQL (Complex Queries, Joins, Window Functions), R
- **Data Visualization & Reporting:** Power BI, Tableau, Advanced Microsoft Excel (Pivot Tables, VLOOKUPs, Macros for data cleaning), Dashboard creation, real-time reporting, and visual storytelling
- **Data Analysis & Modelling:** Data Cleaning and Transformation, Data Preprocessing, A/B Testing, Time Series Analysis, Predictive Analytics (Linear Regression, Forecasting), Natural Language Processing (NLP), Large Language Models (LLMs – prompt engineering)
- **Database & Data Management:** SQL Databases, Data Warehousing Concepts, ETL Processes, Data Quality Assurance, AWS (basic usage for storage/data access)
- **Business Intelligence & Market Analytics:** KPI Tracking, Revenue & Sales Analysis, Consumer Insights, Marketing & Web Analytics, Statistical Analysis
- **Tools & Environments:** Git, GitHub, Jupyter Notebook, Visual Studio Code, Qlik Sense (introductory exposure), HTML, CSS, JavaScript
- **Soft Skills:** Analytical Problem Solving, Strong Communication Skills, Stakeholder Collaboration, Adaptability, Proactive Approach, Teamwork

## EDUCATION

**University of Liverpool, United Kingdom**

Master of Science in Data Science and Artificial Intelligence

September 2023

**CDAC, India**

Post Graduate Diploma in Embedded Systems Design

January 2021

**GITAM University, India**

Bachelor of Technology in Electronics & Communication Engineering

August 2019

## PROJECTS

**Interactive Dashboard & Report Project: Room Utilization Analysis – [View Repository](#)**

- Analysed occupancy data from 20+ rooms over 2 floors, identifying 5 underutilized rooms (<30%) and 4 overutilized ones (>90%).
- Designed a time-series analysis pipeline using Python, Dash, and Plotly, with anomaly detection (z-score > 2.0) to uncover irregular usage.
- Developed a responsive dashboard with floor/room filters, heatmaps, and predictive layout planning features.
- Proposed a scalable data model and smart scheduling strategy adaptable for space management and IoT-based monitoring in operational settings.

**Research Project: Visualizing Gender Diversity in Computer Science Publications – [View Repository](#)**

- Processed 50,000+ author records from DBLP API to analyse trends in gender diversity across CS publications from 1970 to 2023.
- Engineered a gender classification pipeline using Kaggle-based datasets and developed visual insights via Plotly and Dash.
- Created a web app with interactive donut charts, trend plots, and filters by venue and year to support research, policy, and outreach.
- Demonstrated ability to deliver accessible analytics platforms tailored to diverse stakeholders with ethical data practices.

**Collaborative Analysis Project: Natural Disasters & Casualties: A Data Analysis – [View Repository](#)**

- Cleaned and integrated EM-DAT and population datasets to assess casualty trends across 9 disaster types in 10 countries over 21 years.
- Built dashboards in Tableau and Excel to visualize deaths, injuries, and affected populations; earthquake-related deaths peaked at 220,000 in 2010.
- Applied regression analysis and geographic filtering to highlight country-specific vulnerabilities (e.g., 1.7B affected in China, 1B in India).
- Produced insights suitable for strategic planning, resource allocation, and long-term resilience modelling in multi-regional contexts.

**Portfolio Website & Analytics Showcase – [View Portfolio & Website](#)**

- Designed and launched two GitHub-hosted portfolio websites using HTML, CSS, and JavaScript to showcase data analytics and visual storytelling projects.
- Demonstrated ability to translate complex data insights into clear, engaging user experiences, aligning with modern best practices in accessibility and narrative design.

## CERTIFICATIONS

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|--|------------|
| • Prepare Data for Exploration - Google, Coursera  | June 2022  |
| • Work Smarter with Microsoft Excel - Microsoft, Coursera                                    | May 2022   |
| • Doing more with Google Sheets - Google Cloud, Coursera                                     | May 2022   |
| • Ask Questions to Make Data-Driven Decisions - Google, Coursera                             | April 2022 |
| • Python Data Structures - University of Michigan, Coursera                                  | July 2021  |
| • Programming for Everybody (Getting Started with Python) - University of Michigan, Coursera | May 2021   |

## ACHIEVEMENTS

Awarded **Best Student Volunteer** for completing 240+ hours of service and demonstrating leadership at both university and district levels

## INTERESTS & HOBBIES

Puzzles & Logic Games | Photography | Food & Travel | Sci-Fi & Fantasy | History & Mythology | Disney