Tarun Sridhara

Sheffield, United Kingdom
Tel: +44 7387506030 — Email: tarunsridhar21@gmail.com — LinkedIn — GitHub

PERSONAL STATEMENT

Quantitative data scientist experienced in applying predictive modelling, statistical analysis, and optimisation to large, data intensive problems. Proficient in Python and R, with hands on experience handling, analysing, and interpreting complex datasets across manufacturing, biomedical, and operational domains. Proven ability to communicate quantitative results to non specialist audiences and contribute effectively within multidisciplinary teams spanning academic and industrial settings.

EDUCATION

MSc Data Science — September 2025 – August 2026 (Present)
The University of Sheffield — Sheffield, United Kingdom

B.Tech Mechanical Engineering — August 2019 – April 2023
PES University — Bengaluru, India

TECHNICAL SKILLS

Programming & Modelling: MS Excel, SPSS, KNIME, Spark, SQL, Databricks
Programming Languages: Python (Pandas, NumPy, SciPy, Scikit-learn, Statsmodels, Prophet, Matplotlib, Seaborn, Streamlit), R
Machine Learning & Statistics: Jupyter Notebook, Excel Charts, Tableau, PowerBI
Data Engineering & Big Data: SQL, Spark, Databricks, KNIME, ETL pipelines
Visualisation & Reporting: Tableau, Power BI, Streamlit, Jupyter, Excel, LaTeX Tools & Platforms: Git, GitHub, SPSS, MS Excel
Tools & Platforms: Git, GitHub, SPSS, MS Excel

EXPERIENCE

Data Scientist and User Researcher in Manufacturing — December 2025 – March 2026
TrackMyMachines Ltd, The University of Sheffield — Sheffield, United Kingdom

- Transformed unstructured machine data into actionable insights by designing strategic KPIs and visualisations, communicating quantitative results clearly to non specialist audiences including managers and shop floor operators.
- Combined stakeholder interviews with domain research to design KPIs aligned with operational realities, working across multidisciplinary teams to bridge data science with practical business needs.
- Drove measurable operational and behavioural change, increasing machine utilisation from under 25% to 46% within a month through data driven decision making and incentive design.

Research Assistant — June 2023 – August 2025
Department of Computer Science and Engineering, PES University — Bengaluru, India

- Built and automated statistical data processing and visualisation pipelines in Python to analyse large multi-sensor flight datasets (IMU, GPS, barometer), reducing manual analysis time by 40%.
- Applied quantitative analysis to autonomous drone flight logs, identifying 8–12% trajectory deviation under varying wind and payload conditions modelling under real world uncertainty and supporting flight controller optimisation with the control systems team.
- Co-developed and delivered lecture and lab sessions for 60 undergraduates per semester, mentoring four research projects and demonstrating strong communication of technical content to non specialist audiences.

Data Analyst — January 2023 – June 2023
Third Axis Ltd — Bengaluru, India

- Analysed machine log data and maintenance records using Python (Pandas, NumPy, Scikit-learn) to develop data-driven scheduling optimisation strategies, increasing 3D printer up-time by 18%, reducing print failures by 22%, and material waste by 15%.
- Built demand forecasting models using Python (Prophet, Scikit-learn) on order histories, procurement data, and seasonality patterns — forecasting under uncertainty to enhance inventory accuracy by 25% and streamline production planning.
- Conducted customer segmentation on CRM and purchase data, identifying key clients driving 65% of revenue and increasing repeat orders by 12%.

PROJECTS

MSc Dissertation (ML, XAI) April 2026

- Developed predictive models on high-dimensional TCGA-BRCA RNA-seq transcriptomic data (a large, complex biomedical dataset) to classify cancer stage, applying log2 normalisation, variance filtering, and Principal Component Analysis (PCA) to isolate differentially expressed features relevant to pharmaceutical biomarker discovery.
- Built and cross-validated mathematical and statistical models including regularised linear models, ensemble decision trees, and multilayer neural networks applying dropout and regularisation to handle modelling under uncertainty and maximise ROC-AUC, precision, and F1-scores.
- Identified candidate transcriptomic biomarkers for late-stage breast cancer using Explainable AI (XAI) feature attribution, validating consensus across model classes via Spearman's rho and Kendall's W work directly relevant to data driven decision-making in drug development contexts.

Data and Design Hackathon - Aquatics GB (Python, Streamlit) April 2026

- Processed 1.5M+ historical athlete records over a 72-hour hackathon, executing EDA and statistical data imputation to establish a reliable foundation for predictive analytics.
- Used Python and Streamlit to deploy an interactive full-stack dashboard featuring visualizations that successfully translated raw data into actionable Olympic readiness intelligence after intensive KPI research.
- Won "Best Application of Design Thinking" award by applying end-to-end user-centric methodologies to bridge heavy data science with an intuitive coaching interface, successfully optimizing national talent scouting workflows.

B.Tech Capstone Project (ANSYS, SolidWorks) February 2023

- Engineered a fully operational agricultural drone using custom-fabricated carbon fibre, optimizing the thrust-to-weight ratio to deliver 60 kg of total thrust and support a 10 kg payload.
- Evaluated structural integrity across multiple materials using intensive Finite Element Analysis (FEA), mathematically validating a high Factor of Safety frame capable of surviving 10m altitude impact forces.
- Configured an open-source flight controller with Mission Planner firmware to enable semi-autonomous navigation, programmable trajectory mapping, and automated flight operations.

LEADERSHIP & ACTIVITIES

- Supported event operations by overseeing guest management and fire safety measures during the 4-Day Golden Jubilee Celebration at PES University, helping deliver a safe and well-organised experience for 3,000 attendees.
- Coordinated corporate collaboration between GKN Aerospace and PES University for the Sustainable Aviation Challenge, establishing sponsor relations and securing £5,000 in industry funding to support 107 competing teams.
- Conducted weekend training sessions under a university research programme, educating enthusiasts on drone flight techniques and safety protocols to promote operational awareness and responsible usage.

ACHIEVEMENTS

- Won 'Best Application of Design Thinking' award at the Data & Design Hackathon 2026 in collaboration with Aquatics GB and University of Sheffield ·
- Nominated for the Inspiring Student Worker Awards by the University of Sheffield. It is an honour to receive this recognition from one of the top 100 universities in the world.
- Secured £6,700 in internal funding from PES University for B.Tech capstone project, leading a team of four to design and develop a fully operational spraying drone, the work involved 3D modelling and design optimisation to enhance stability while minimising material usage and overall weight.

CERTIFICATION & COURSES

- **IBM Data Science Professional Certificate (ACE® and FIBAA approved);** by IBM. (Coursera) – April 2024
- **IBM Applied AI Professional Certificate;** by IBM. (Coursera) – April 2024
- **Data Science Ethics;** by University of Michigan. (Coursera) – April 2024