

# KANMANIVISHWAA PARAMASIVAM

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## EDUCATION

### MSC IN APPLIED DATA SCIENCE AND STATISTICS

Jan 2022 – Jul 2023

University of Exeter, Exeter

Grade -2:1

**Key Modules:** Data Wrangling and Data Cleaning | Data Visualization | Data Modeling and Data Warehousing| Data manipulation | Exploratory Data Analysis | Statistical Data Modelling using R | Machine Learning using python.

## PROFESSIONAL EXPERIENCE

### Data Analyst

Havin Infrastructure Private Limited, India

Oct 2023 – Feb 2025

- Developed predictive analytics models using Python, reducing equipment failures by 25% through proactive maintenance planning and resource allocation optimization.
- Led cross-functional collaboration with engineering teams on \$50M bridge project, delivering data-driven insights that accelerated budget approvals by 22% using Agile methodologies.
- Created Power BI and Tableau dashboards enhancing management decision-making by 30%, supporting forecasting and performance metrics development.
- Cut data prep time by 45% by building smarter SQL pipelines that connected maintenance logs and sensor data across departments.
- Implemented automated data quality processes, reducing compliance effort by 30% and ensuring reliable inputs for technical planning and reporting.
- Led cross-functional collaboration on \$50M bridge project using Agile methodologies, MS Excel project planning, and Teams coordination, delivering data-driven insights that accelerated budget approvals by 22%.

## DISSERTATION-ACADEMICS (RESEARCH PROJECT)

### Predicting the Virulence of Bacterial Pathogens - <https://github.com/pk527/Statistical-Data-Analysis>

Performed comprehensive statistical analysis and built machine learning models using Python, enhancing prediction accuracy. Cleaned and preprocessed data, improving integrity by 95% and reducing errors by 40%. Applied EDA, statistical modeling, and SHAP visualizations to interpret feature importance, leading to 60% more efficient decision-making. Developed regression and classification models, boosting predictive accuracy by 85% and delivering actionable insights faster.

## ACAPROJECTS

- Market Analysis in North America**(<https://github.com/pk527/Market-Analysis>) - Led comprehensive market analysis integrating 500K+ SQL records, improving data integrity by 25%. Built interactive dashboards enhancing decision-making efficiency by 40%.
- Youtube Data Engineering Project**(<https://github.com/pk527/Youtube-Data-Analysis>) - Built a scalable YouTube analytics pipeline using AWS S3, Athena, Glue, and Lambda to process 1M+ records, improving data retrieval by 60%. Designed a star schema warehouse and interactive dashboards in Power BI & QuickSight, boosting stakeholder engagement by 50% with real-time insights.
- Multi-Agent F1 Pit Stop Strategy Simulation | Game Theory & Motorsport Analytics-** <https://github.com/pk527/Multi-Agent-Simulation-of-Formula-1-Pit-Stop-Strategy-Using-Game-Theory.-> Developed intelligent pit stop strategy simulator using Bayesian game theory for F1 teams. Integrated FastF1 API with 2024 Spanish Grand Prix data, creating interactive **Python dashboard** analyzing 36+ strategy combinations with real-time simulation.
- Analyzing NO2 Release in North Heathrow using Gam** - Collected data from 2010 to 2021 having influencing climatic factors and information concerning the NO2 release and fit the model with **GAM (statistical data modelling in R)** to determine the release of NO2 in North Heathrow.
- Spatial And Temporal Analysis of Temperature in United Kingdom** -Utilized **R and ARIMA modeling** for temporal and spatial analysis(geospatial), selecting appropriate methods for data analysis and using the **AIC and maximum likelihood values**, we search for the most **accurate model**.

## SKILLS

- Programming Languages:** Python (Numpy and pandas), R language (Plotly, Ggplot2, Dplyr, TidyR, Stringr), SQL (MySQL, NoSQL and PostgreSQL), MATLAB, C and C++.
- Operating Systems:** Android, Windows, Linux, and Ios.
- Core Competencies:** Technical capacity planning, Forecasting & predictive analytics, Data-driven decision making, Cross-functional collaboration, Performance metrics development and Project coordination.
- Cloud Services:** AWS, Snowflake.
- Data Handling:** ETL, Data Cleaning, Data Integration, QA & Validation, Oracle (basic knowledge of Cloud).
- Tools:** Jupyter Notebook, RStudio, Advanced MS Excel (Pivot tables, Power query and VBA), Power BI, Tableau, SPSS, Microsoft Word, GitHub, MS SQL Server, MS PowerPoint and MS Outlook.

## CERTIFICATIONS

- F1 Data Analysis - Lap Time Simulation -Race Strategy - Competitor Analysis -Udemy - 2024