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.
- Designed and deployed dynamic Power BI dashboards with advanced DAX measures, enabling a **30% improvement in executive decision-making** by visualizing KPIs and forecasting performance metrics.
- Built and optimized complex **SQL pipelines** integrating data from multiple departments, reducing data preparation time by **45%** and ensuring high-quality, consistent inputs for reporting.
- Engineered scalable ETL workflows using SSIS-like architectures (via AWS Glue and SQL), processing **over 1 million records**, and enhancing data availability and governance across business units.
- Led cross-functional collaboration with engineering teams on $50M bridge project, delivering data-driven insights that accelerated budget approvals by 22% using Agile methodologies.
- Implemented automated data quality processes, reducing compliance effort by 30% and ensuring reliable inputs for technical planning and reporting.

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.

PROJECTS

- **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 , 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