

## Summary

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As a recent M.Sc. Physics graduate with a strong foundation in Python, Machine Learning, and SQL, I am seeking a data role where I can apply these skills and my passion for problem-solving to real-world data challenges.

## Education

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Master of Science - **M.Sc., Physics** (Jul 2022 - May 2024)

The American College, Madurai – 625002

## Skills

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- **Python** (Pandas, NumPy, SciPy, Matplotlib, Seaborn, requests and BeautifulSoup for Data Collection, Data Wrangling, EDA and Data Visualization)
- **Machine learning** (Scikit-Learn: Regression analysis, Classification models and Clustering model)
- **SQL** (MySQL, SQLite)
- **Microsoft Power BI** (Data modelling, Data Wrangling, EDA and Data Visualization)
- **Microsoft Excel** (Data Wrangling and Data Visualization)
- **Statistics and Probability** (Descriptive and Inferential Statistics, Sampling, Hypothesis testing including **A/B testing**)
- Problem solving, Communication, Critical thinking, Team work and collaboration, Time management, Adaptability, Attention to details

## Projects

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### **BANK CUSTOMER CHURN ANALYSIS AND PREDICTION** – Personal Project

- Developed and implemented predictive models, including Logistic Regression, SVM, KNN, and Decision Tree, for customer churn analysis, achieving accuracy rate of 85%.
- Designed and deployed a comprehensive Power BI dashboard, providing intuitive visualizations to facilitate data-driven decision-making processes and actionable insights for reducing customer churn.
- [https://github.com/Madhavananalyst/data\\_science\\_projects/blob/main/Bank%20Customer%20Churn%20Analysis%20and%20Prediction.pdf](https://github.com/Madhavananalyst/data_science_projects/blob/main/Bank%20Customer%20Churn%20Analysis%20and%20Prediction.pdf)

### **ANALYSIS AND PREDICTIVE MODELING FOR SPACEX FALCON 9 FIRST STAGE LANDING SUCCESS** – Guided Project

- Developed and implemented a predictive model leveraging classification algorithms to forecast the landing success of SpaceX's Falcon 9 rocket first stage, optimizing launch operations and cost efficiency.
- Utilized advanced data wrangling techniques, including web scraping and API integration, to gather and preprocess SpaceX launch data, ensuring high-quality inputs for predictive analysis.
- Executed comprehensive exploratory data analysis (EDA) using SQL and visualization tools, extracting actionable insights to inform strategic decision-making for SpaceX's rocket launch operations.
- [https://github.com/Madhavananalyst/data\\_science\\_projects/blob/main/Winning%20Space%20Race%20with%20Data%20Science.pdf](https://github.com/Madhavananalyst/data_science_projects/blob/main/Winning%20Space%20Race%20with%20Data%20Science.pdf)

### **AN ANALYSIS OF COSMOLOGICAL MODELS** – Academic Project

- Utilized Bayesian estimation and chi-square minimization methods to estimate the cosmological Parameters of  $\Lambda$ CDM and wCDM models and conducted comparative analysis of the results obtained from both methods and models to assess their accuracy and reliability.
- [https://github.com/Madhavananalyst/data\\_science\\_projects/blob/main/An%20Analysis%20of%20Cosmological%20Models.pdf](https://github.com/Madhavananalyst/data_science_projects/blob/main/An%20Analysis%20of%20Cosmological%20Models.pdf)

## Certification

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### **IBM Data Science Specialization**

<https://coursera.org/share/a4ac318388ff8c1508003852d29689bf>