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| SUTIRTHA MUKHERJEE | +91 7864831687 | [sutirthapg@gmail.com](mailto:sutirthapg@gmail.com) | [Portfolio](https://aapugithub.github.io/SM_Portfolio_Website.io/)  https://www.linkedin.com/in/sutirtha-mukherjee-55a624a1/  https://github.com/Aapugithub/PortfolioProjects/tree/main  Sainthia, West Bengal 731234 |

# Education

PhD in theoretical physics – Jadavpur University and IACS, Kolkata, India 2016

M.Sc. in physics – The University of Burdwan, West Bengal, India 2009

# Skills

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| **Python**  Pandas, NumPy, matplotlib, Seaborn, Beutifulsoup  **Machine Learning and Deep Learning**  scikit-learn, Keras | **SQL**  MySQL, SQL Server, SQLite  **Excel**  Advanced Formulas, Pivot Table, Pivot Chart | **Power Bi**  Power Query, DAX,  Interactive Visualizations  **C and FORTRAN programming**  Monte Carlo, MPI-OMP |

# Projects

credit card fraud detection with machine learning –ml Internship Project **–**CodSoft Kolkata October 2023

* Developed Python-based **machine learning** (ML) models to detect credit card fraud in a dataset of 1.3 million transactions.
* Conducted data cleaning, exploratory data analysis (EDA), and feature engineering using **Pandas**, **Matplotlib**, and **Seaborn**.
* Implemented ML algorithms, including Logistic Regression, Random Forests, and XGBoost, to create predictive models.

customer churn prediction WITH ML – ml Internship Project **–** CodSoft Kolkata November 2023

* Developed machine learning models to predict customer churn in commercial banks.
* Conducted data cleaning, transformation, and EDA to extract insights and prepare data for predictive modeling.
* Compared various ML algorithms, including SVM, Random Forest, boosting to construct a robust churn prediction model.

DATA SCIENCE JOB MARKET DASHBOARD with power bi – Data-Camp Case study January 2024

* Created a **Power BI** dashboard for analyzing and reporting Data Science job market data.
* Transformed and processed the dataset using Power-Queryand DAX, ensuring it was optimized for in-depth analysis.
* Extracted valuable insights by crafting meaningful KPIs and creating impactful visualizations.

**RESTAURANT Order Analysis using MYSQL DATABASE–** Maven Analytics Project December 2023

* Analyzed restaurant order data across multiple MySQL database tables to evaluate the performance of menu items.
* Used SQL queries for data integration, filtering, grouping, aggregation, and sorting.
* Extracted insights on customer preferences and menu performance from SQL analysis.

# Work Experience

Machine learning virtual internship – CodSoft – Kolkata October 2023-November 2023

* Developed predictive models across four distinct machine learning projects.

post-doctoral researcher in physics**–** Korea Institute for Advanced Study **–** Seoul, Korea August 2016-August 2022

* Developed computational codes to investigate the physics of intriguing materials and published multiple research articles.

# Data-Related Certifications

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| **IBM Data Science Professional**  **Certificate** Coursera,July 2023 | **Microsoft Power BI Desktop for Business Intelligence** Udemy,December 2023 | **Advanced SQL: MySQL for Ecommerce & Web Analytics** Udemy**,** December2023 |