SUTIRTHA MUKHERJEE

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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

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

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**,** December 2023