

SURBHI GARG

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EDUCATION

Master of Information Management (*specializing in Data Science*) May 2024 (Expected)
University of Maryland - College Park, MD GPA: 4.00

Bachelor of Engineering, Instrumentation and Control Aug 2020
Netaji Subhas Institute of Technology (Delhi University), Delhi, India GPA: 8.86/10

TECHNICAL SKILLS

- **Databases:** MySQL, Oracle, Microsoft SQL Server
- **Languages & Libraries:** SQL, C++, Python, VBA, R, NumPy, Pandas, Scikit-learn, Matplotlib, ggplot2
- **Platforms & Tools:** Power BI, Tableau, MS Excel, Jupyter Notebook, Git, GitHub, Azure
- **Statistics/ ML:** Linear/ Logistic Regression, Decision Trees, KNN, Random Forest, A/B Testing

COURSEWORK & CERTIFICATION

- **Coursework:** Data Structures, Analysis of Algorithms, Artificial Techniques and Applications, Linear Algebra, Introduction to Data Science, Statistics and Probability, Database Design, Project Management
- **MOOCs:** Introduction to Machine Learning, Database Management Essentials, Introduction to SQ, Designing Azure Data Solutions, Implementing Azure Data Solutions, Data Warehousing, ETL Processes **ualization**

WORK EXPERIENCE

Data Science Research Assistant (*NumPy, Pandas, Jupyter Notebook, Git, data cleaning*) Jan 2023 – Present
University of Maryland, College Park, MD

- Performed **data cleaning & preprocessing** techniques on the data with **40 million+** rows using **python packages**, aiding in the construction of the final dataset used in the assessment of pretrial risks
- Developed complex python scripts for data collection & evaluation, initiating visualization using Matplotlib library

Teaching Assistant (*NumPy, Pandas, Python Programming*) Aug 2022 – Dec 2022
University of Maryland, College Park, MD

- Assisted Instructor of INST 126- Introduction to programming course by grading assignments of 70+ students
- Enhanced student learnings by providing feedback on their tasks, communicating their progress to Instructor

Business Analyst (*Power BI, DAX, MS Excel, Oracle SQL Server, SAS, Power Automate*) Sep 2020 – Jun 2022
Exl Services, Noida, India

- Developed reports in **MS Excel** and **Power BI** platforms after extracting the required information using SQL queries in Oracle, and SAS, helping the clients in their decision-making processes
- Reconfigured automated letter alert system using **Oracle**, Power BI, **Power Automate** and, **SAS** scheduler, aiding the client in acknowledging their customer's queries timely, increasing their **efficiency by 40%**
- Improved the existing **SQL queries** in Oracle, leading to an increase in their **performance by 35 %**
- Developed Data visualization dashboards using Power BI, enabling the client migrate their in-house tool from external platform into Microsoft environment, helping them save **\$2 Million**

PROJECTS

IMDB Movie Data Analysis (*R-studio, Hypothesis Testing, Regression Analysis*) Dec 2022

- Performed **EDA** on IMDB movie dataset to analyze relations between movie rating, genre and, affecting factors
- Conducted **hypothesis tests** like Two-sample t-test in **R** to understand trends between the features
- Applied **Multiple Linear Regression** model to formulate a relationship between the features

Flight Price Prediction Web Application (*Scikit-learn, Pandas, Matplotlib, predictive Modeling*) Jun 2022

- Developed a web application using **Flask api**, **HTML**, and **CSS** to predict future prices of the flight
- Applied multiple **Regression models** on the dataset, evaluating their performance based on RMSE
- Performed Hyperparameter tuning, achieving R^2 score of .83 with Gradient Boost regression model

Gesture Detection based on EMG Signals using ML (*Feature extraction, classification modeling*) Aug 2020

- Developed supervised Machine Learning models that detect hand movement gestures using EMG signals dataset
- Extracted time & frequency domain features from the data after the application of windowing techniques
- Applied Multiple **Classification models** on the features, achieving accuracy of 98.44 % with **KNN**