

# Shakil Ahammed

## Data Analyst

### Summary

I am experienced in collecting, cleaning, and analyzing large datasets using modern tools. I also possess over 2 years of expertise in extracting meaningful insight and have made valuable contributions to developing reports and dashboards for visualizing key performance indicators. I am also proficient in data analysis and visualization, enabling effective uncovering of patterns and trends to drive informed decision-making processes.

### Experience

#### Data Analyst - Research Assistant

July 2023-Present

- I conducted statistical analysis on 20+ datasets and over 500 tree samples related to tree growth, health, and biodiversity, contributing to a comprehensive understanding of forest ecosystems.
- Gained experience over 1 year using statistical software (e.g., Python, R, SQL, Excel, Power BI, etc.) for data analysis and visualization.
- Developed predictive models with an accuracy rate exceeding 70% to assess the impact of climate change on tree species distribution, significantly contributing to conservation efforts.
- Created 100+ visualizations using Power BI, Python, and R to present insights to the research supervisor and forest officials, enhancing communication of research results.

### Education

Bachelor of Science: Forestry and Environmental Science *Jan 2020-Present*  
Shahjalal University of Science and Technology, Sylhet, Bangladesh

### Certifications From IBM Cognitive Class

- [Data Analysis with Python](#)
- [Machine Learning with Python](#)
- [R for Data Science](#)
- [SQL and Relational Databases](#)
- [Data Visualization with R](#)
- [Data Visualization with Python](#)

### Projects

**Superstore Sales Analysis by Python:** The goal of this project is to analyze the data and identify insights that can help the company improve its business performance. I conduct 5 hypothesis tests for this project. Findings:

- **Product Focus:** Identified technology products(\$6,637,78) as the most profitable category; endorsed development and promotion to enhance profit margins.
- **Regional Analysis:** Analyzed sales data revealing the central region(\$3m) as the highest performer; proposed targeted marketing strategies to further capitalize on this region.
- **Seasonal Sales Strategy:** Implemented same-day shipping options, resulting in lower return rates (\$23.91) and increased weekday profits. Recommended maximizing sales during peak months (November and December) through increased inventory(\$1.4m+), targeted campaigns, and promotional offers.

#### Suggestions:

- **Portfolio Optimization:** Suggested reducing lower-margin products to streamline the product portfolio and enhance overall profitability.
- **Central Region Targeting:** Proposed increased focus on the central region, with evaluations of other regions to identify growth opportunities.
- **Year-Round Sales Maintenance:** Introduced strategies for maintaining sales during off-peak months, including the launch of new products and ongoing promotions or discounts.

### Contact

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### Skills

- Python
- R
- Machine Learning
- SQL
- Power BI
- Excel
- MySQL
- PostgreSQL
- Data Visualization
- Statistical Analysis
- Analytical Thinking
- Problem-Solving
- Adaptability

### Portfolio

*Github:*

[github.com/SHAKIL-The-Analyst](https://github.com/SHAKIL-The-Analyst)

*Google Drive:*

[drive.google.com/drive](https://drive.google.com/drive)

### Language

- English
- Bengali
- Hindi

- **Logistics Improvement:** Advocated for more same-day shipping options by optimizing inventory management and supply chain processes.
- **Weekend Promotions:** Developed targeted weekend-only promotions and special events to attract weekend shoppers.
- **Focusing on popular product categories** among weekend shoppers, such as home entertainment and outdoor products.

**Breast Cancer Prediction Machine Learning Project Using Logistic Regression:** I analyzed breast cancer data using a logistic regression model, and the results are promising because model accuracy is 98%. My trained model can be used for analyzing individual hospital cells, integrated into a doctor-facing application for making predictions, and potentially linked to a tissue analysis machine for automated diagnosis. By leveraging Python's minimalist API, this approach has the potential to save lives significantly.

**Vrinda Store Sales Analysis Using Excel:** This project aims to analyze the data and uncover insights that can assist the company in enhancing its business performance. Findings:

- **Sales and Orders:** March recorded the highest sales (Rs 1,928,066), while November had the lowest.
- **Gender:** Women placed 64.05% of orders, exceeding men's 35.95%.
- **Order Status:** Most of the orders were delivered (92%) respectably returns (3%), cancellations (3%), and refunds.
- **Top Ordering States:** Maharashtra (Rs 2,990,221) had the highest orders respectably in Karnataka and Uttar Pradesh.
- **Age Group:** Women (64%) dominated orders across all age groups.
- **Channel Distribution:** Amazon (35%) consistently led in order percentage respectably Myntra (23%) and Flipkart.

#### **Recommendation:**

- Improve customer satisfaction in top-ordering states and target female customers due to their higher order placement.
- Allocate resources based on channel contributions.
- Promote innovation, provide training, and encourage data-driven decision-making.

**Credit Card Financial Dashboard Using Power BI:** I created an interactive dashboard by pulling transaction and customer data from an SQL database into Power BI. This allowed for real-time insights. I also improved the data processing and analysis to keep track of important performance metrics and trends. Additionally, I shared actionable insights with stakeholders based on the dashboard findings to help with decision-making.

**Northwind Traders Sales Analysis by SQL:** I have analyzed and interpreted the sales data of Northwind Traders. The project uses SQL to query and manage large datasets, providing a comprehensive view of sales patterns, customer behavior, and inventory management. The analysis aims to identify key trends, performance metrics, and potential areas for optimization.

**Hotel Booking Analysis by Python:** In recent years, City Hotel and Resort Hotel have seen high cancellation rates. Each hotel is now dealing with several issues as a result, including fewer revenues and less-than-ideal hotel room use. Consequently, lowering cancellation rates is both the hotel's primary goal to increase their efficiency in generating revenue, and for us to offer thorough business advice to address this problem. The analysis of hotel booking cancellations as well as other factors that have no bearing on their business and yearly revenue generation are the main topics of this report.

#### **Hypothesis Test:**

1. More cancellations occur when prices are higher.
2. When there is a longer waiting list, customers tend to cancel more frequently.
3. Most clients are coming from offline travel agents to make their reservations.

**Suggestions:** Cancellation rates rise as the price does. To prevent cancellations of reservations, hotels could work on their pricing strategies and try to lower the rates for specific hotels based on locations. They can also provide some discounts to the consumers. The ratio of cancellations of the resort hotel is higher in the resort hotel (over 1000 bookings) than in the city hotels. So, the hotels should provide a reasonable discount on the room prices on weekends or holidays. In January, hotels can start campaigns or marketing with a reasonable amount to increase their revenue as the cancellation is the highest in this month. They can also increase the quality of their hotels and their services mainly in Portugal to reduce the cancellation rate.