

# 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.

### Work History

#### Research Assistant

I performed in-depth data analysis using R programming in several forestry research projects at SUST over 1 year. I used machine learning to predict key indicators. Jul 2024- Present

### Education

Bachelor of Science: Forestry and Environmental Science  
*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

### Portfolio

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

*Google Drive:* [drive.google.com/drive](https://drive.google.com/drive)

### Projects

**Slash Pine Biomass Data Machine Learning with R:** DBH (diameter at breast height), HT (height), and age all have positive correlations with total tree mass, indicating they are good predictors. In comparison with the regression model, the random forest model achieved a slightly lower mean squared error and explained variance compared to the multiple linear regression model. However, the regression model produced some negative predicted tree mass values, which is undesirable. Both models exhibited heteroscedastic residuals (unequal variance), suggesting data transformation or alternative modeling techniques might be needed for improvement.

### Contact

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### Skills

**Python Programming**

**R Programming**

**Machine Learning**

**SQL**

**Power BI**

**Microsoft Excel**

**PostgreSQL**

**MySQL**

**Data Analysis**

**Data Visualization  
and Presentations**

### Languages

English

Bengali

Hindi

**Superstore Sales Analysis by Python with Hypothesis Test:** Insights: Technology products are the most profitable. The East region has the highest sales. Seasonal sales: Same-day shipping has the lowest returns and higher weekday profit. Focus on technology products: Develop and promote them for higher profits. Reduce lower-margin products: Optimize product portfolio. Target central region: Increase focus and evaluate others. Maximize sales during November and December: Increase inventory, run targeted campaigns, and offer promotions. Maintain sales during other months: Introduce new products and offer promotions or discounts. Offer more same-day shipping options: Optimize inventory and supply chain. Focus on different promotions during weekends: Offer weekend-only promotions, run targeted campaigns, and organize special events. Offer products popular among weekend shoppers: Home entertainment and outdoor products.

**Northwind Traders Sales Analysis by SQL:** Analyze and interpret the sales data of Northwind traders. The project utilizes SQL to query and manage large datasets, providing a comprehensive view of sales patterns, customer behavior, and inventory management. The analysis is focused on identifying key trends, performance metrics, and potential areas for optimization.

**Breast Cancer Prediction Machine Learning Project Using Logistic Regression:** Predict cell malignancy based on breast cancer dataset measurements. Our analysis using a logistic regression model on breast cancer data shows promise. The trained model can be used for punctual cell analysis in hospitals, integrated into a doctor-facing application for predictions, and potentially connected to a tissue analysis machine for automated diagnosis. Utilizing Python's minimalist API, this approach could significantly save lives.

**Credit Card Financial Dashboard Using Power BI:** Developed an interactive dashboard using transaction and customer data from an SQL database to provide real-time insights. Streamlined data processing & analysis to monitor key performance metrics and trends. Shared actionable insights with stakeholders based on dashboard findings to support decision-making.

**Vrinda Store Sales Analysis Using Excel:** Findings: Sales and Orders: March had the highest sales, while November had the lowest. Gender: men placed 64.05% of orders exceeding men's 35.95%. Order Status: Most orders were delivered, followed by returns, cancellations, and refunds. Top Ordering States: Maharashtra leads orders, followed by Karnataka and Uttar Pradesh. Channels: Amazon had the highest order count, followed by Myntra and Flipkart. Age Group: Women dominated orders across all age groups. Channel Distribution: Amazon consistently led in order percentage, followed by Myntra and Flipkart. Enhance customer satisfaction in top-ordering states. Allocate resources based on channel contributions. Foster innovation, provide training, and promote data-driven decision-making.