

# Pritom Bhowmik

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**GitHub:** [github.com/pritom02bh](https://github.com/pritom02bh) | **Portfolio:** [pritom02bh.github.io](https://pritom02bh.github.io) | **LinkedIn:** [linkedin.com/in/bhowmikpritom](https://linkedin.com/in/bhowmikpritom)

## Data Analyst with Generative AI

Supply Chain Data Analyst with 3+ years of experience in statistical modeling, predictive analytics, Machine Learning and data science. Leverages AI & LLMs to optimize inventory, enhance forecasting accuracy, and drive logistical operational efficiency.

### EDUCATION

**Montclair State University**, New Jersey, USA

Expected Graduation May 2025

Master of Science (MS) in Data Science, Cumulative GPA: **3.97/4.0**

**Honors:** Alpha Epsilon Lambda Honor Society

**Institute of Engineering & Management**

August 2016 - July 2020

Bachelor of Technology (B.Tech.) in Computer Science & Engineering

### SKILLS

**Data Analytics and Statistics:** Data Cleansing, Exploratory Data Analysis, Statistics, Hypothesis Testing, A/B Testing

**Analysis & Visualization Tools:** Power BI, Tableau, Looker, Excel, Jupyter Notebook, Streamlit

**Database Management Systems:** SQL Server, PostgreSQL, MySQL, NoSQL, Redis

**Programming Languages:** Python, R, Java

**Machine Learning:** Classical ML Algorithms, Deep Learning,

**AI & LLMs:** Retrieval Augmented Generation (RAG), Prompt Engineering, Fine Tuning, AI Agents, Agentic RAG

### PROJECTS

#### Last Mile Delivery Optimization Platform with Weather-Adaptive Route Intelligence

- Projected to reduce operational costs by 25% & improve on-time delivery performance by 30% through intelligent route planning and data-driven fleet management, based on simulated scenarios and analysis.
- Designed a weather-adaptive routing system intended to cut weather-related delays by 60% and boost delivery time accuracy by 40%, targeting a 95% customer satisfaction rate, as estimated from project simulations.

#### Advanced Supply Chain Product Demand Forecasting & Inventory Optimization with Interactive Dashboard

- Developed a supply chain analytics data application using ensemble machine learning models that achieved 9.2% mean absolute percentage error (MAPE) in demand forecasts, enabling optimal inventory management decisions.
- Created an interactive dashboard with dynamic visualizations that reduced stockouts by determining optimal reorder points and economic order quantities (EOQ), resulting in reduction in inventory carrying costs.

#### Data-Driven Customer Churn Analytics & Predictive Insights for Proactive Retention Strategies

- Identified top churn factors, including customer tenure, engagement, and support issues and provided actionable insights for reducing churn by 12% through targeted retention strategies.
- Helped the marketing team optimize retention campaigns, increasing customer re-engagement by 18% and boosting conversion rates by 22%, leading to a measurable decrease in churn through data-driven personalization and outreach strategies

#### AI Based Multi-Agentic RAG Based Chatbot System for Pharmaceutical Supply Chain & Operational Optimization

- Specialized AI multi-agents with RAG implementation for demand forecasting, route optimization, and inventory management autonomously analyze real-time data, reducing inefficiencies, minimizing delays, and improving decision-making.
- Enabled stakeholders to perform complex supply chain analytics through a conversational AI chatbot, leveraging Agentic RAG to generate insights from structured and unstructured data using simple natural language queries.

### EXPERIENCE

#### Upwork (Domain- Supply Chain, Logistics, Healthcare)

June 2021 – March 2023

Data Analyst (Freelance-Remote)

- Optimized SQL queries to enhance data retrieval efficiency, reducing report generation time, improving database performance.
- Implemented statistical and predictive modeling techniques to identify complex patterns, forecast demand, and provide data-driven support for strategic decision-making.
- Generated weekly and monthly reports, delivering actionable insights to senior management and stakeholders on key performance indicators, trends, and areas for improvement.
- Developed interactive dashboards and automated reporting solutions, improving data accessibility for key stakeholders.

**Upkey**, Chicago, IL

November 2020 – May 2021

IT Project Management Internship (Remote), Project Sponsored by IE Business School, Spain

- Collaborated with a cross-functional team of three to develop an end-to-end machine learning-based clustering system, grouping patients with similar cancer profiles to enhance personalized support. (Top 3 among 22 projects)