

Mohammad Sakibul Islam

☎ 519-760-5927 | ✉ sakibul1605@gmail.com | 💻 [linkedin.com/in/mohammad-sakib-islam-w/](https://www.linkedin.com/in/mohammad-sakib-islam-w/) | 📍 Guelph, Canada

EDUCATION

- **Master of Data Science (MDS) | University of Guelph** September 2023 – August 2024
GPA: 91.33
Completed Coursework: Statistical Learning, Introduction to Data Science, Data Manipulation and Visualization, Machine Learning for Sequences, Analysis of Big Data, Neural Networks, Data Science Project, Analysis of Spatial Temporal Data
- **Bachelor of Science in Computer Science & Engineering (CSE) | Bangladesh University of Engineering & Technology (BUET), Bangladesh** February 2017 – May 2022
CGPA: 3.66 on a scale of 4.00

WORK EXPERIENCE

- **Graduate Research Assistant : Institutional Research & Planning (IRP) | University of Guelph** May 2024 – August 2024
 - Implemented an Exponential Smoothing model to forecast undergraduate enrollment for the next five years across various academic terms, optimizing predictions for institutional planning.
 - Automated the forecasting process using Tableau Prep to evaluate the impact of diverse intake scenarios for domestic and international students.
 - Designed an interactive Tableau dashboard to display enrollment predictions, providing insights for informed decision-making and strategic planning.

- **Graduate Teaching Assistant | University of Guelph** September 2023 – April 2024
 - Graded assignments and exams with precision, offering detailed feedback to enhance student performance.
 - Conducted office hours to address student inquiries and proctored exams to maintain academic integrity.

- **Software Developer | IQVIA, Bangladesh** September 2022 to August 2023
 - Worked on .NET Core microservice applications using a vertically-sliced architecture, adhering to SOLID principles.
 - Implemented new features, resolved defects, and created BDD (Behavior-Driven Development) tests to ensure robust software functionality.

PROJECTS

- **Analysis of Big Data Project: Exploratory Data Analysis using PySpark**
Utilized PySpark for comprehensive Exploratory Data Analysis (EDA) on US Census data spanning from 2015 to 2017. Employed advanced visualization techniques to explore demographic attributes, including ethnic composition and gender distribution. Investigated socioeconomic factors such as poverty rates, employment patterns, income disparities, and commute patterns across different states to analyze temporal trends for comprehensive insights.
- **Analysis of Spatial Temporal Data Project: Healthcare Accessibility Analysis**
Analyzed healthcare accessibility in Toronto to identify optimal locations for new facilities and improve emergency response. Applied spatial analysis techniques, including spatial clustering and kernel density estimation (KDE), to locate areas with high demand and underserved populations. Utilized Inverse Distance Weighting (IDW) for estimating healthcare demand and identifying suitable new facility locations. Employed road network analysis with Dijkstra's algorithm to determine the shortest routes to existing facilities, enhancing emergency response strategies.
- **Machine Learning Project: Movie Insights Analysis**
Utilized natural language processing (NLP) and machine learning techniques to extract valuable insights from a movie dataset. Developed a content-based movie recommendation system that suggests films based on similarities in movie descriptions, leveraging NLP to analyze and compare textual data. Implemented multilabel genre classification by analyzing movie overviews, enabling the categorization of films into multiple genres simultaneously. Additionally, predicted movie ratings using various features such as genre, budget, and revenue, applying machine learning methods and feature importance analysis.
- **Neural Network Project: Symptom Driven Plant Disease Classification**
Designed a plant disease diagnosis system using Gemini-Vision-Pro for extracting visual features and generating symptom descriptions from images. Integrated these insights with a multi-modal fusion model to compare symptom based and image-based classification methods, improving classification accuracy.

- **Data Visualization Project: Customer Shopping Trends Dashboard**

Developed a comprehensive dashboard analyzing customer behavior and purchasing patterns across various dimensions including product categories, regional trends, age group preferences, subscription status, seasonal behavior, promotions, payment methods, and shipping preferences through interactive visualizations using Google Looker Studio.

- **Statistical Learning Project using R: Case study of Pima Indian Diabetes Dataset**

Leveraged various statistical learning approaches, such as logistic regression, decision trees, and ensemble methods, in **R** to develop predictive models for diabetes diagnosis. Additionally, conducted detailed exploratory data analysis to uncover and elucidate key factors contributing to diabetes risk, thereby facilitating informed decision-making in healthcare.

AWARDS & HONORS

- **Dean's List Scholarship | Bangladesh University of Engineering & Technology (BUET)**

Recipient of the Dean's List Scholarship at BUET in 2022 for demonstrating academic excellence during my final year of bachelor's studies

TECHNICAL SKILLS

- **Languages:** Proficient in programming languages including R, Python, and SQL for data analysis and manipulation.
- **Data Visualization Tools:** Proficient in data visualization tools such as Tableau, Google Looker Studio, and PowerBI for creating interactive and insightful visualizations.
- Experienced in utilizing scikit-learn, TensorFlow, PyTorch, and PySpark for machine learning and exploratory data analysis (EDA) tasks.