

NAHIAN ARNOB

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Education

- **Regis University** **Aug 2024 – May 2026**
MS in Data Science
CGPA: 3.9/4.00 *Denver, Colorado*

Relevant Coursework: Data Collection and Preparation, Exploratory Data Analysis, Data Visualization, Text Analytics, Predictive Analytics, Deep Learning, Machine Learning, Artificial Intelligence, Business Intelligence, Big Data Architecture.

- **BRAC University** **Jan 2018 – Dec 2022**
BSc in Computer Science and Engineering
CGPA: 3.27/4.00 *Dhaka, Bangladesh*

Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming, Database Management Systems, Computer Networks, Machine Learning, Discrete Mathematics, Systems Analysis & Design, Circuits & Electronics, Programming (Java, Python, C/C++)

Experience

- **Quantanite Bangladesh Limited** **Nov 2023 - Aug 2024**
Project Associate *Dhaka, Bangladesh*

- Data processing and Project coordination: Managed and executed various data, processing projects, ensuring timely completion, and adherence to project specifications.
- Content Moderation: Conducted comprehensive content moderation to ensure compliance with project requirements and standards.
- Data Pre-processing, Cleaning, Labeling and Modeling: Performed accurate data, cleaning, and pre-processing and labeling for Machine Learning models applied classification techniques to categorize data effectively supporting the development of refined predictive models.
- Quality Assurance: Implemented quality control measures to validate data, accuracy, and integrity. Identified discrepancies and corrected errors to maintain high standard of data reliability without bias.

- **Automotive Body Management** **Jan 2022 - 2024**
Co-founder *Dhaka, Bangladesh*

- Develop business strategy and conducted market research and manage finances of the company
- Provided technical guidance and troubleshooting assistance, improving customer service and quality assurance.
- Hire automotive body repair technicians, lead a team, build supplier relationship relationships, ensure high-quality service, and overseas daily operations for business growth.

- **GT Automobiles BD** **Jan 2020 - 2022**
Service Advisor - Part Time *Dhaka, Bangladesh*

- Assisted customers by diagnosing vehicle issues, explaining repair recommendations, and coordinating service appointments to ensure timely and efficient vehicle maintenance.
- Communicated between customers and technicians to provide accurate updates on repair progress, cost estimates, and service timelines.
- Assisted in installation and calibration of electrical meters and automation systems, improving measurement reliability.
- Maintained service records, processed invoices, and ensured high customer satisfaction through professional problem-solving and follow-up.

Publication

- **Detection of Coronary Artery Blockage at an Early Stage using Effective Deep Learning Technique** [[Link](#)]
 - Conducted research on early detection of coronary artery blockage using deep learning techniques, analyzing 2151 angiogram images to develop an automated medical diagnostic system
 - Implemented multiple CNN based architectures(VGG16, VGG19,ResNet50, InceptionV3 and DenseNet121) and applied ensemble learning to improve prediction performance and reliability.
 - designed both binary and multi class classification models to detect presence of blockage and identify specific artery locations(LAD, LCX, RCA, or multiple blockage)
 - Achieved high accuracy in both binary and multi class classification demonstrating the potential of deep learning to assist early diagnosis of coronary disease.
Published in IEEE Journal and presented at the 2022 25th International Conference of Computer and Information Technology

Projects

- **Card Fraud Detection System using Machine Learning Technique** [[GitHub Link](#)]
 - Developed an end-to-end credit card fraud detection system using Python, implementing Logistic Regression and Random Forest models on a dataset of 555K+ transactions to identify fraudulent activity.
 - Performed data preprocessing, exploratory data analysis, and feature engineering, including target encoding and correlation analysis, to identify key fraud indicators such as transaction category, location, and transaction amount.
 - Addressed severe class imbalance (0.38% fraud rate) using SMOTE oversampling, improving model learning for minority fraud cases and enhancing detection performance.
 - Implemented cloud-based remote monitoring for live data tracking and system performance analysis.
 - Deployed the final Random Forest fraud detection model via a Streamlit web application, enabling users to input transaction features and receive real-time fraud probability predictions.
 - **Technologies Used:** Python, Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn, SMOTE, Streamlit, Pickle.

Technical Skills

- **Programming:** Python, R-script, HTML, SQL, Java, MATLAB
- **Data Analysis:** Exploratory Data Analysis (EDA), Statistical Analysis, Hypothesis Testing, Data Cleaning, Data Wrangling.
- **Machine Learning:** Supervised Learning, Unsupervised Learning, Classification, Regression, Clustering, Model Evaluation.
- **Deep Learning:** Neural Networks, Convolutional Neural Networks (CNN), Recurrent Neural Networks (RNN), Transformer Models
- **Natural Language Processing (NLP):** Text Mining, Sentiment Analysis, Topic Modelling, Text Classification.
- **Data Visualization:** Tableau, Power BI, Matplotlib, Seaborn, Plotly, ggplot2
- **Database Management:** SQL, MySQL, MongoDB
- **Data Engineering:** Data Pipelines, Data Integration, Data Warehousing
- **Data Processing Libraries:** Pandas, NumPy, Scikit-learn, TensorFlow, Keras, PyTorch
- **Feature Engineering:** Feature Selection, Feature Scaling, Target Encoding, Dimensionality Reduction (PCA)
- **Model Optimization:** Hyperparameter Tuning, Grid Search, Cross Validation
- **Model Deployment:** Steamlit, Flask, REST APIs
- **Data Science Tools:** Jupyter Notebook, VS Code, Google Collab, Git, GitHub

Professional Competencies

- Quick learner with the ability to perform versatile tasks efficiently in all environments.
- Strong problem-solving ability with the capability to identify technical issues and implement effective solutions.
- Excellent communication and presentation skills with the ability to clearly explain complex ideas.
- Strong analytical and critical thinking skills for evaluating problems and making data-driven decisions.
- Ability to work independently as well as collaboratively in team environments.
- Effective time management and organizational skills with attention to detail in reporting and documentation.
- Leadership and management skills with experience coordinating tasks and responsibilities.
- Vendor and stakeholder coordination with a focus on maintaining professional relationships.

English Proficiency Test

- **IELTS Academic** — Overall Band Score: 7.0 (Listening: 7.0 Reading: 6.0 Writing: 6.5 Speaking: 8.0)