

Mehedi Hasan Bijoy

mhb6434@gmail.com | LinkedIn | Github | Portfolio

Education

- **B.Sc. in Computer Science & Engineering**

North South University

CGPA: 3.81 / 4.00

Specialization: Artificial Intelligence

May 2017 - Sep 2021

Research Interest

Machine Learning, Meta-learning, Computer Vision, Natural Language Processing, and Data Science

Experience

- **Teaching Assistant, MAT361-Probability and Statistics**

Department of Mathematics & Physics, North South University

Oct 2020 - Sep 2021

- I. Conducted tutorial sessions for students needing extra help outside of class hours by holding weekly office hours.
- II. Graded assignments, homeworks, and quizzes of undergraduate students.
- III. Assisted faculty members with their course-related works like record-keeping, tracking attendance, and calculating grades.

Programming Skills

- **Languages:** Python, SQL, Java, C
- **DL Frameworks:** PyTorch, Keras
- **ML Libraries:** Scikit-learn, Pandas, Numpy, Matplotlib, Seaborn, NLTK, Gensim
- **Databases:** MySQL, PostgreSQL, SQLite
- **Data Visualization Tool:** Tableau
- **Web Scraping Libraries:** BeautifulSoup, Requests, Urllib, Wikipedia-API
- **Developer Tools:** Git, Google Colab, Jupyter Notebook, Eclipse, NetBeans, SSMS, SQL Workbench

Awards & Scholarships

- Summa Cum-laude in Bachelor of Science.
- Partial tuition fee waiver grant for undergraduate studies at North South University.

Publications

- Image Tagging by Fine-tuning Class Semantics Using Text Data from Web Scraping
ICCI2021 / (oral presentation)

Authors: **Mehedi Hasan Bijoy**, Nirob Hasan, Md. Tahrim Faroque Tushar, and Shafin Rahman

Open-source

- **Imgclassifier**
(code)

A python library developed on top of PyTorch which allows a user to do image classification by writing only one line of code. (Current Version: 0.0.1)

Selected Projects / Research

- **A Deep Learning Approach to Detecting Rice Leaf Diseases** (*CNN, Transfer Learning*) [[code](#) / [demonstration-video](#)]
Proposed a lightweight architecture for rice and tomato leaf disease detection which is 12 times smaller than the previous architecture yet improved the accuracy for rice leaf disease detection from around 92% to 98%. Also reported a thorough comparison of existing pre-trained models.
- **Bangla Handwritten Character Recognition** (*DL, ANN, CNN*) [[code](#) / [overview-video](#)]
Proposed a domain-specific Bangla handwritten character recognition method using image embeddings. Did a thorough comparison between conventional and embedding-based classification.
- **NSU Faculty Prediction** (*ML, Classification*) [[code](#)]
NSU-IT hides faculty initials during advising for some reason. I built a model which predicted the faculty initial of Spring-2020 with around 70% accuracy score.
- **Data Science Salary Prediction** (*ML, Regression*) [[code](#)]
It includes Data Cleaning, Exploratory Data Analysis, Feature Engineering, Data Visualization, and Predictive Models. Predictive models include Linear Regression, Lasso Regression, and Random Forest Regression. The best model is figured out by grid search.
- **Exploratory Data Analysis & Data Visualization** (*Python, SQL, Tableau*) [[dashboards: SalesInsights](#) - [IPL](#) - [Housing](#) - [Crime](#) - [AirBnB](#)]
Different use-cases including Sales Data of a Company, AirBnB's data, Foreign Direct Investment, IPL data to name a few have been inspected and visualized to find useful data insights.
- **MINION** (*MySQL, PHP, HTML, CSS*) [[code](#) / [overview-video](#)]
It is a web application that connects drivers, maids, and recruiters. In a nutshell, it gives recruiters a chance to check driver's or maid's reviews before recruiting them.