

Umnoon Binta Ali

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SUMMARY

Innovative and scientifically rigorous recent graduate majoring in Computer Science and Engineering from North South University currently working as a Data Scientist at Astha.IT. I'm a data science enthusiast. I'm attentive to new technologies, take on leadership, and good at analytical decision making.

EDUCATION

Bachelor of Science in Computer Science and Engineering (BSCSE) North South University, CGPA: 3.60	2017–2022
Higher Secondary Certificate (HSC) Rajuk Uttara Model College, GPA: 5.00	2016
Secondary School Certificate (SSC) Rajuk Uttara Model College, GPA: 5.00	2014

WORK EXPERIENCE

Data Scientist Astha.IT	July 2023 - Present
Research Assistant Department of Electrical and Computer Engineering North South University Supervisor: Dr. Nabeel Mohammed Research Domain: Bangla NLP	April 2022 - July 2022

SKILLS

Languages	Python, R, C, C++, Java, PHP, Latex
Machine Learning Frameworks	Keras, PyTorch, Tensorflow, Scikit Learn
Data Analysis and Visualization	Pandas, Matplotlib, Seaborn, Plotly
Computer Vision	OpenCV
Web Development	HTML5, CSS3, Bootstrap, ReactJs
Database Management	MySQL, PostgreSQL, SQLite
Big Data Tools	PySpark, Hadoop, Spark, Databricks
Web Frameworks	Django, Flask
Data Visualization Tools	PowerBI, Tableau, Streamlit
Operating Systems	Windows, Linux
Version Control	Git
Office Tools	MS Office, Google Workspace
Graphic Design	Adobe Photoshop, Adobe Illustrator

CERTIFICATIONS

- [Hyperparameter Tuning with Keras Tuner](#)
- [Deep Learning with Pytorch: GAN](#)
- [Multivariate Calculus for Machine Learning](#)
- [Data Science Math Skills](#)
- [Introduction to Artificial Intelligence](#)
- [Linear Algebra for Machine Learning](#)
- [Introduction to AR and ARCore](#)
- [Introduction to Python](#)
- [Introduction to R](#)
- [Intermediate R](#)

PROJECTS

Transfer Learning for Speaker Diarization on Bangla Audio Dataset

[CSE499 Graduate Dissertation](#)

In this research, transfer learning was explored for speaker diarization on our own Bangla audio data. the approach experiments with different clustering algorithms and embedding techniques to reduce Diarization Error Rate, DER for noisy data.

Contrastive Learning for Text-to-Image on Paraphrasing Captions

[CSE498 CO-OP Research Project](#)

In this research, I presented a contrastive learning strategy to for enhancing the quality and semantic consistency of synthetic images by paraphrasing the captions from the CUB dataset.

A Deep Convolutional Neural Network for Bangla Handwritten Numeral Recognition

[CSE465 Pattern Recognition and Neural Network](#)

In this research, I studied the most unbiased and augmented Dataset NumtaDB to classify images in isolated Bangla numerals. I augmented synthetic data using Keras library, and fed the data to the training model in the pipeline stage. Furthermore, I used popular CNN network ResNet34 to better the performance of the model.

Tweet Emotion Recognition with Tensorflow

[Repository](#)

I created a recurrent neural network or 'RNN' and train it on a tweet emotion dataset from hugging Face, to learn and recognize emotions in tweets. The dataset has thousands of tweets each classified in one of 6 emotions. This is a multi-class classification problem in the natural language processing domain.

Outbreak Prediction and Visualization with PowerBI: Covid-19

[CSE299 Junior Design Project](#)

Here I used Global Outbreak Alert and Response Network (GOARN) data to predict the time of the highest spread of covid-19. The time-series visualization is done with Power BI.

Data Science webapp for motor vehicle collision in NYC

[Streamlit](#)

I built a basic data science webapp with streamlit analyzing motor vehicle collision in NYC. I used the following libraries: numpy, pandas, pydeck and plotly

Calculator with JavaScript

[JavaScript](#)

Use of ES6 classes to organize code, syncing JavaScript code with UI, CSS Grid, Flexbox etc.

EXTRA-CURRICULAR ACTIVITIES

Arduino Workshop at NSU ACM Student Chapter Worked on building obstacle avoiding robot	2018
Computer and Engineering Club at North South University Junior member	2017–2019
Debating Club at RUMC Participated in the in-house Parliamentary Debating Competition	2012–2014
Inhouse Handball Tournament at RUMC Regional Champion of Intra-School Handball Tournament	2014–2015

ATTRIBUTES

Design Skills	AutoCAD, Sketch up
Soft Skills	Leadership, Team work, Adaptability, Digital Literacy
Language Proficiency	English, Bangla

REFERENCE

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