

Tonmoy Talukder

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Summary

Looking for opportunities in the field of machine learning and data science, utilizing my programming and analytical skills in research that will help me advance professionally while also being resourceful, creative, and adaptable. As a quick learner with a passion for utilizing technology to solve complex problems, I am eager to work in a dynamic and collaborative environment where I can continuously improve my skills and knowledge in the vast field of machine learning.

Education

- **Bachelor in Science, Computer Science & Engineering** | (2018-2023)
Ahsanullah University of Science & Technology, Dhaka

Experience

Mentor | Technovation

December, 2021 – Present

Mentoring students for AI development Project for participate international Tech competition named Technovation Girls Challenge.

Jr Research Assistant | Research Hub

July, 2021 – March, 2023

Assistant on several research projects and work on teams for separate team projects and papers.

Research Paper

- **Bengali Key-to-Text: Text Generation from Keywords in Bengali using Pre-trained Transformers** (Ongoing)
March, 2023 – Present (First Author)
 - This is a solo research work under my supervisor. I have developed a keyword extractor using BERT.
 - I trained T5 that can generate caption from sentence.
- **Multimodal Image and Text Classification using Pre-trained Transformers on LAION-400-MILLION OPEN DATASET** (Ongoing)
July, 2022 – Present (First Author)
 - This is my undergrad thesis work. I am mostly developing the coding side.
 - I have led the team to develop the collected dataset. We are currently using BERT and RESNET 50 for this multimodal classification.
- **Rank Your Summaries: Enhancing Bengali Text Summarization via Ranking-based Approach** (Under Review)
December, 2022 – March, 2023 (First Author)
 - I have applied some Bengali text summarization models to generate summary.
 - Used a BERT text ranker generated the best summary.
 - Applied ensemble approaches. And compared their results.

Skills

Programming Language: Python, JavaScript, C++, SQL (msSQL), Markup Language (HTML, CSS)

Frameworks: Pytorch, Tensorflow, React JS, Node JS, Material UI, Tailwind CSS

Tools: Jupyter Notebook (Anaconda 3), Colab, VS Code, Firebase, Chrome Dev Tools, Git

Projects

- [Bengali Hate Speech Classification](#) – NLP Classification with different machine learning algorithms with hyperparameter fine tuning, Ensemble approaches
- [Diabetes-Prediction Analysis](#) - Seven algorithms with hyperparameter fine tuning, Ensemble approaches
- [Churning-Telecom-Company-Prediction](#) - One-hot Encoding, Decision Tree Classification, Grid Search & Cross-Validation, Confusion Matrix, Classification report, and ROC-AUC
- [Test Cricket Analysis](#) - Pandas, Numpy
- [Audi Used Car EDA](#) - Jupyter NoteBook, Pandas, Numpy, Matplotlib
- BookPedia – C#, JavaScript, ASP.NET, React JS
A social media with some features like: book upload, online book reading, Review blog writing
- The Niketan (MERN Full Stack) – JavaScript, React Js, Node Js, FireBase Authentication
- Yapp Mart – Database based project what is a basically an ecommerce tool. Tools – msSQL, JavaFX, Java

Activities

- Intra Aust Programming Contest – 2019 (7th Position, Junior Division)
Ahsanullah University of Science & Technology, Dhaka
- Makers' Mania – Programing Contest – 2018 (4th Position, Junior Division)
Independent University Bangladesh, Dhaka

Additional

Language Competencies: English (Professional working proficiency), Bangla (Native), Hindi (Full working proficiency)

Research Interest: Multimodal Deep Learning, Natural Language Processing, Computer Vision, Human Computer Interaction, Machine Learning

Data Science Skill: Data Analysis, Data Visualization, ML & Deep Learning Model Training

Certification: Data Visualization, Analysis & Machine Learning with Python by EMK Center, Data Science Track by DataCamp (Ongoing), Complete Web Development (MERN Stack) by Programming Hero

Additional Experience: Exploratory Data Analysis, Competitive Programming, MERN Stack Web Development (Full Stack)

Reference

Mr. G. M. Shahariar, Lecturer
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Email: shahariar_shibli.cse@aust.edu
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Sidratul Moontaha, The Diana Award Holder 2021
Founder & CEO, YouThentic++
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