Tonmoy Talukder

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Portfolio: https://tonmoytalukder.github.io/

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GitHub: https://github.com/TonmoyTalukder

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.

Research Paper___

• Rank Your Summaries: Enhancing Bengali Text Summarization via Ranking-based Approach (Accepted in BIM 2023)

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.
- Bengali Key-to-Text: Text Generation from Keywords in Bengali using Pre-trained Transformers (Under Review in EMNLP 2023)

March. 2023 - June 2023

- 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.
- Vision2Cap: Bengali Caption Generation from Images using Pre-trained Transformer (Ongoing) July, 2023 Present
 - This is also a solo research work under my supervisor.
 - I am currently working on the development of a pretrained transformer-based model aimed at detecting objects in the Bangla language and generating image captions in Bangla.
- Additional research insights can be found in: https://tonmoytalukder.github.io/research

Skills__

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

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

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

Projects

- <u>Bengali Hate Speech Classification</u> NLP Classification with different machine learning algorithms with hyperparameter fine tuning, Ensemble approaches
- <u>Diabetes-Prediction Analysis</u> Seven algorithms with hyperparameter fine tuning, Ensemble approaches
- <u>Churning-Telecom-Company-Prediction</u> 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
- Additional project insights can be found in: https://tonmoytalukder.github.io/projects

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

Reference

Mr. G. M. Shahariar, Lecturer Department of Computer Science and Engineering

Ahsanullah University of Science and Technology

Email: <u>shahariar_shibli.cse@aust.edu</u> Web: <u>https://shahariar-shibli.github.io/</u> **Sidratul Moontaha**, The Diana Award Holder 2021 Founder & CEO, YouThentic++ Chapter Ambassador, Technovation AI Ambassador, NVDIA AI

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