

Sajib Kumar Saha Joy

Ahsanullah University of Science and Technology

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🌐 [sajib-kumar.github.io](https://github.com/sajib-kumar)

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Education

Ahsanullah University of Science and Technology

B. Sc. in Computer Science and Engineering

CGPA: 3.856 on a scale of 4.00 (2nd in Merit Position)

Dhaka, Bangladesh

Fall 2015 - Spring 2019

Research Interests

Natural Language Processing, Large Language Models, Computer Vision, Explainable AI

Undergraduate Thesis

Early Depression Detection From Social Network Using Deep Learning Techniques

Supervisor: [Mr. Faissal Muhammad Shah](#), Associate Professor, Department of CSE, AUST

Publications [\[Google Scholar\]](#)

Published

- Faisal M. Shah, Farzad Ahmed, **Sajib Kumar Saha Joy**, Sifat Ahmed, Samir Sadek, Rimon Shil and Md. Hasanul Kabir. "Early Depression Detection from Social Network Using Deep Learning Techniques". In *2020 IEEE Region 10 Symposium (TENSYP)*, pages 823–826, 2020.
- Faisal Muhammad Shah, **Sajib Kumar Saha Joy**, Farzad Ahmed, Tonmoy Hossain, Mayeesha Humaira, Amit Saha Ami, Shimul Paul, Md Abidur Rahman Khan Jim and Sifat Ahmed. "A Comprehensive Survey of COVID-19 Detection Using Medical Images". In *SN Computer Science*, 2(6): 1–22. 2021.
- Farzad Ahmed, Samiha Sultana, Md Tanzim Reza, **Sajib Kumar Saha Joy** and Md. Golam Rabiul Alam. "Interpretable Movie Review Analysis Using Machine Learning and Transformer Models Leveraging XAI". In *2022 IEEE Asia-Pacific Conference on Computer Science and Data Engineering (CSDE)*, pages 1–6, 2022.
- Kazi Toufique Elahi, Tasnuva Binte Rahman, Shakil Shahriar, Samir Sarker, **Sajib Kumar Saha Joy** and Faisal Muhammad Shah. "Explainable Multimodal Sentiment Analysis on Bengali Memes". In *26th International Conference on Computer and Information Technology (ICCIT)*, pages 1–6, 2023.

Under Review

- **Sajib Kumar Saha Joy**, Arman Hassan Mahy, Meherin Sultana, Azizah Mamun Abha, MD Piyal Ahmmed, Yue Dong, G M Shahariar "Gender Bias Mitigation for Bangla Classification Tasks". In *NAACL*, 2024
- Md. Tanvir Rouf Shawon, G. M. Shahariar, Farzad Ahmed and **Sajib Kumar Saha Joy**. "Explainable Cost-Sensitive Deep Neural Networks for Brain Tumor Detection from Brain MRI Images considering Data Imbalance". In *Multimedia Tools and Applications*, Springer, 2023

Ongoing Research Projects

- Adversarial Attack on Bangla Classification Tasks: An Empirical Study
- Bengali Image Caption Generation using Large Language Models combined with CLIP
- Phylogenetic Tree Construction Using BERT Based Model

Experience

Lecturer

Department of Computer Science & Engineering
Ahsanullah University of Science and Technology, Dhaka, Bangladesh

August 2021 - Present

Lecturer (Contractual)

Department of Computer Science & Engineering
BRAC University, Dhaka, Bangladesh

October 2020 - September 2021

Technical Skills

Languages: Python, C, C++, C#, JAVA, HTML5, PHP, XML, R JavaScript, 80x86 Assembly

Framework: CSS, WebGL, JSP

Database: MySQL

IDE: Jupyter Notebook, PyCharm, Eclipse, NetBeans, Microsoft Visual Studio Code

Operating System: Windows, Android

Deep Learning Tools: Keras, Tensorflow, Pytorch

Others: PL/SQL, LaTeX

Awards & Achievements

- [Dean's List of Honor \(Based on B.Sc. result\)](#)
- Certificate for paper presentation at 2022 IEEE Symposium on Industrial Electronics & Applications, Malaysia
- Certificate for paper presentation at the conference on Machine Intelligence and Emerging Technologies (MIET 2022)
- [Certificate for completing the course "Natural Language Processing Specialization" in Coursera](#)
- [Certificate for completing the course "AI for Medicine Specialization" in Coursera](#)
- [Certificate for completing the course "TensorFlow" in Coursera](#)
- [Certificate for completing the course "Machine Learning" in Coursera](#)
- [Certificate for completing the course "Deep Learning Specialization" in Coursera](#)

Academic Projects

1. Benchmarking Different Versions of BERT
Description: This project is all about analyzing the result obtained from different versions of Bert for classification task.
Link: <https://github.com/sajib-kumar/Benchmarking-different-version-of-bert->
2. Image Caption Genarator
Description: This project is all about generating caption of image. Flickr_8k dataset was used in this project.
Link: <https://github.com/sajib-kumar/Image-Caption-Genarator>
3. Online Examination System

Description: A online based exam system made with HTML, servlet, jsp, apache server.

Link: <https://github.com/sajib-kumar/Online-Written-Examination-System>

4. Expenditure Management System

Description: By using this android app, user can store their daily cost , shows Monthly cost.

Link: <https://github.com/sajib-kumar/DailyCost>

5. Graph Simulator

Description: Graph simulation application. User can create graph and can run BFS and DFS algorithm.

Link: <https://github.com/sajib-kumar/Graph-Simulator>

6. Paint

Description: User can draw basic shapes, free hand drawing, color object, save Image application.

Link: <https://github.com/sajib-kumar/Paint>

Extracurricular Activities

- Active member of AUST CSE Seminar Committee
- Active member of AUST CSE Lab Development Committee
- Advisor of Cefalo CodeFiesta 2022: AUST Inter-University Programming Contest
- Organizer of Intra-AUST Programming Contest Fall 2018
- Organizer of AUST CSE Festival Fall 2018