Sajib Kumar Saha Joy

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Education

Ahsanullah University of Science and Technology   **Dhaka, Bangladesh**
B. Sc. in Computer Science and Engineering   *Fall 2015 - Spring 2019*
CGPA: 3.856 on a scale of 4.00(2nd in Merit Position)

Rajshahi Government City College   **Rajshahi, Bangladesh**
Higher Secondary School Certificate (HSC)   *2011 - 2012*
GPA: 5.00 on a scale of 5.00

Shahzadpur Pilot High School   **Rajshahi, Bangladesh**
Secondary School Certificate (SSC)   *2009 - 2010*
GPA: 5.00 on a scale of 5.00

Research Interests

Natural Language Processing, Computer Vision, Machine Learning, Deep Learning

Undergraduate Thesis

Early Depression Detection From Social Network Using Deep Learning Techniques
Supervisor: Mr. Faisal Muhammad Shah, Associate Professor, Department of CSE, AUST

Publications

Published

o **Sajib Kumar Saha Joy**, Farzad Ahmed, Al Hasib Mahamud and Nibir Chandra Mandal. **"An Empirical Study on How the Developers Discussed About Pandas Topics"**. In *Machine Intelligence and Emerging Technologies, pages 242–255, Cham, 2023. Springer Nature Switzerland.*

o 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.*

o **Sajib Kumar Saha Joy**, Dibyo Fabian Dofadar, Riyo Hayat Khan, Md. Sabbir Ahmed and Rafeed Rahman. **"A Comparative Study on COVID-19 Fake News Detection Using Different Transformer Based Models"**. In *2022 IEEE Symposium on Industrial Electronics & Applications (ISIEA), pages 1-5, 2022.*

o 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.*

o 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 (TENSYMP), pages 823–826, 2020.*

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Under Review

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o 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

o Investigating the Effectiveness of XAI Generated Salient Features for Text Classification
o Phylogenetic Tree Construction Using BERT Based Model
o Bengali Image Captioning

Experience

Lecturer
Department of Computer Science & Engineering   *August 2021 - Present*
Ahsanullah University of Science and Technology, Dhaka, Bangladesh

Lecturer (Contractual)
Department of Computer Science & Engineering   *October 2020 - September 2021*
BRAC University, Dhaka, Bangladesh

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

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

Reference

Dr. Md. Shahriar Mahbub
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Ahsanullah University of Science and Technology
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Dr. S. M. A. Al-Mamun
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