

# Sajib Kumar Saha Joy

Ahsanullah University of Science and Technology

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## Education

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**Ahsanullah University of Science and Technology**

*B. Sc. in Computer Science and Engineering*

**CGPA: 3.856** on a scale of 4.00 (2<sup>nd</sup> in Merit Position)

**Dhaka, Bangladesh**

*Fall 2015 - Spring 2019*

**Rajshahi Government City College**

*Higher Secondary School Certificate (HSC)*

GPA: 5.00 on a scale of 5.00

**Rajshahi, Bangladesh**

*2011 - 2012*

**Shahzadpur Pilot High School**

*Secondary School Certificate (SSC)*

GPA: 5.00 on a scale of 5.00

**Rajshahi, Bangladesh**

*2009 - 2010*

## Research Interests

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

## Undergraduate Thesis

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**Early Depression Detection From Social Network Using Deep Learning Techniques**

*Supervisor: Mr. Faisal Muhammad Shah, Associate Professor, Department of CSE, AUST*

## Publications

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- **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.
- 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.
- **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.
- 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.

- 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.

## Ongoing Research Projects

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- Visualizing the Effectiveness of Cost Sensitive Neural Network for Imbalanced Dataset Using XAI
- Investigating the Effectiveness of XAI Generated Salient Features for Text Classification
- Phylogenetic Tree Construction Using BERT Based Model
- Image Captioning

## Experience

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### 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

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**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

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- Dean's List of Honor (Based on B.Sc. result)
- Certificate for paper presentation at 2022 IEEE Symposium on Industrial Electronics & Applications, 16-17 July 2022, Malaysia
- Certificate for paper presentation at the conference on Machine Intelligence and Emerging Technologies (MIET 2022), Noakhali Science and Technology University (NSTU), Bangladesh
- 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
- Certificate for completing the course "Python for Data Science and Machine Learning Bootcamp" in Udemy

## Academic Projects

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### 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. Loan Pay Back Prediction System  
Description: Predict whether a person going to pay the loan back or not.  
Link: <https://github.com/sajib-kumar/Data-Science-Machine-Learning/tree/master/Loan%20Pay%20Back%20Predictor>
  3. 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>
  4. 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>
  5. 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>
  6. 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>
  7. Paint  
Description: User can draw basic shapes, free hand drawing, color object, save Image application.  
Link: <https://github.com/sajib-kumar/Paint>

## Extracurricular Activities

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- o Advisor of Cefalo CodeFiesta 2022: AUST Inter University Programming Contest
- o Organizer of Intra-AUST Programming Contest Fall 2018
- o Organizer of AUST CSE Festival Fall 2018

## Reference

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### **Dr. Md. Shahriar Mahbub**

Head, Department of Computer Science & Engineering  
Ahsanullah University of Science and Technology  
Email: shahriar.cse@aust.edu

### **Dr. S. M. A. Al-Mamun**

Professor, Department of Computer Science & Engineering  
Ahsanullah University of Science and Technology  
Email: almamun@aust.edu, al\_mamun81@yahoo.com

### **Mr. Faisal Muhammad Shah**

Associate Professor, Department of Computer Science & Engineering  
Ahsanullah University of Science and Technology  
Email: faisal.cse@aust.edu, faisal505@hotmail.com