# Md. Sakib Bin Alam

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### Research Interests

Deep Learning, NLP, Data Science, Healthcare, Data Value, Information System

### **Education**

M.S. in Data Science and AI, Asian Institute of Technology (AIT)

**Thailand** 

GPA: **3.80**/4.0 (86-95% marks)

Jan 2022 - Dec 2023

Thesis (ongoing): Unsupervised text summarization using question-answer signal

B.Sc. in Computer Science and Engineering, International Islamic University Chittagong

Bangladesh

GPA: 3.95/4.0

July 2017

## **Work Experience**

**Teaching Assistant** 

Jan 2023 - July 2023

Asian Institute of Technology (AIT)

- 'Data Analytics for Business Intelligence' course (Vietnam Campus).
- 'Business Intelligence and Analytics' course (Thailand Campus).
- Responsibilities: conducted lab classes, created and graded assignments, evaluated students' progress.

**Research Assistant** Jan 2023 - present

AIT Brain Lab, Thailand

Sep 2018 - Dec 2021 Lecturer

Asian University for Women (AUW), Bangladesh

o Prepared and delivered lectures and conducted lab classes. Prepared quizzes, problem sets, question papers, and graded answer scripts.

Oct 2017 - Mar 2018 **Adjunct Lecturer** 

International Islamic University Chittagong, Bangladesh

o Prepared and delivered lectures and conducted lab classes. Prepared guizzes, problem sets, question papers, and graded answer scripts.

#### **Publications**

### Peer-reviewed Journal Articles and Conference Proceedings

Total citations >= 47, h-index: 4, i-10 index: 2 according to Google Scholar [Aug 2023]

- 1. Shams F. Ahmed, Md. Sakib Bin Alam, et.al. "Deep learning modelling techniques: Current progress, applications, advantages, and challenges". Artificial Intelligence Review. 2023. (Q1, IF: 12.0). DOI: https://doi.org/10.1007/s10462-023-10466-8
- 2. Shams F. Ahmed, Md. Sakib Bin Alam, et.al. "Industrial internet of things (IIoT)-enabled technologies: Applications, challenges and future directions". Computers and Electrical Engineering. 2023. (Q1, IF: 4.3). DOI: https://doi.org/10.1016/j.compeleceng.2023.108847
- 3. Muhammed J.A. Patwary, Subrina Akter, Md. Sakib Bin Alam, A.N.M. Rezaul Karim. "Bank Deposit Prediction Using Ensemble Learning". Artificial Intelligence Evolution. 2021. DOI: https://doi.org/10.37256/aie.222021880
- 4. Md. Sakib Bin Alam, Muhammed J.A. Patwary, Maruf Hassan. "Birth Mode Prediction Using Bagging Ensemble Classifier: A Case Study of Bangladesh". International Conference on Information and Communication Technology for Sustainable Development (ICICT4SD). IEEE. 2021. DOI: 10.1109/ICICT4SD50815.2021.9396909

5. Maruf Hassan, **Md. Sakib Bin Alam**, Tanveer Ahsan. "Emotion Detection from Text Using Skip-thought Vectors". 2nd International Conference on Innovations in Science, Engineering and Technology (ICISET). IEEE. DOI: 10.1109/ICISET.2018.8745615. 2018. [Best Paper Award]

### Manuscripts under review & in progress

- 1. Shams F. Ahmed, Md. Sakib Bin Alam, et.al. "Insights into Internet of Medical Things (IoMT): Data fusion, security issues and potential solutions". Information Fusion. (Q1, IF: 18.6) [Revision stage]
- 2. **Md. Sakib Bin Alam**, Aiman Lameesa, et.al. "Role of deep learning in cognitive healthcare: Wearable signal analysis, algorithms, benefits, and challenges". Digital Communications and Networks. (Q1, IF: 7.9) [Submitted]

### **Honors and Awards**

• Runner-up in the Hackathon 'Develop innovative solution for Digital TB management' (Thailand section)	Aug 2023
organized by AIT and University of Geneva. Acquired 10,000 baht grant.	

o Prestigious Royal Thai Govt. Scholarship for my Master's degree at AIT.

2022-2023

• Awarded **100% tuition fee scholarship** in the Master's in Data Science program, Tampere University, Finland (I declined).

2021

• University Merit Scholarship for Excellent Academic Performance. International Islamic University 2013 – 2016 Chittagong.

### **Skills**

- o Languages: Python, MATLAB, Java, C/C++, SQL, HTML, CSS
- o Libraries/APIs/Tools: pandas, numpy, matplotlib, sklearn, PyTorch, HiggingFace, Transformers, Tableau

## **Selected Projects**

## Analysis of customer data at Sprocket Central Pty Ltd. for future business recommendation

(This project was a part of virtual internship arranged by KPMG and Forage (Australia))

- Data Quality Assessment (check missing/duplicate/incorrect values and clean/complete them for analysis)
- Data Insights (Targeting high value customers based on customer demographics and other attributes)
- Dashboard creation to present insights.

### Fresh From Farm

- o Created a database management system to store information about farmers, their products (crops), and customers. Through this system farmers can sell their crops to the customers. The project is done in three different aspects: Relational Database (SQL), NoSQL (MongoDB) and Graph Model (Neo4j).
- Performed data analysis to find significant insights and trends.

### Land Use Classification using Satellite Image Dataset (group project)

- Applied custom-built CNNs for land use classification.
- o Applied transfer learning to fine-tune pre-trained networks such as AlexNet and ResNet.
- o Performed extensive analysis for misclassified images per label, prediction accuracy per label etc.

## **Leadership Experience**

### **Student Advisor,** Asian University for Women.

Aug 2019 – Dec 2021

• Besides teaching at AUW, I worked as a Student Advisor. As an advisor, I regularly monitored students' performance and helped them to develop individual study plans.

## **Research (Community Services)**

#### Reviewer

- Journal
  - Future Generation Computer Systems (IF: 7.5)
  - IEEE Access (IF: 3.9)