

MD. TANVIR ALAM

Department of Computer Science and Engineering, University of Dhaka, Dhaka, Bangladesh
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EDUCATION

Master of Science

2020 - 2022

Department of Computer Science and Engineering, University of Dhaka, Bangladesh
GPA: 4.00/4.00 (Ranked 1st)

Bachelor of Science

2016 - 2019

Department of Computer Science and Engineering, University of Dhaka, Bangladesh
GPA: 3.96/4.0 (Ranked 1st)

TEACHING EXPERIENCE

Lecturer

2023-Present

Department of Computer Science and Engineering, University of Dhaka, Bangladesh.
Courses Taught: Multivariable Calculus and Geometry, Numerical Methods, Fundamentals of Programming Lab, Application Development Lab, Design and Analysis of Algorithms - I Lab.

Lecturer

2022-2023

Department of Computer Science and Engineering, East West University, Bangladesh.
Courses Taught: Web Programming, Advanced Database Systems, Computer Architecture.

RESEARCH EXPERIENCE

Research Assistant, Regional Collaborations Programme, Australian Academy of Science

2021-2022

Project title: Geo-spatial transfer learning based rumour-spreading trend analysis to detect fake news about COVID-19 and on the effects of its vaccines

- Developed an algorithm for analyzing information-spreading trends presented as edge-ordered graphs
- Assessed the performance of the algorithm by conducting experimental analysis on data sets
- Collaborated with co-authors to prepare a manuscript for publication

Research Assistant, Brown University, United States

2021

Project title: Making Meaning of Gendered Violence and the Law: Global Discourses and Local Realities in Bangladesh.

- Constructed a corpus for textual analysis of gendered violence in Bangladesh
- Devised and applied a technique for cleaning topic-wise text data from numerous sources

Research Assistant, Department of ICT, Ministry of PTIT, Bangladesh.

2020-2021

Project title: DrAi: Artificial Intelligence and Pattern Recognition Driven Assistant for Providing Effective Treatment

- Supervised the development team of the software system
- Designed the machine learning pipeline, conducted data collection, model development, and deployment
- Collaborated in preparing manuscripts for publication and project reports

Research Assistant, Data Mining Research Group, Department of CSE, University of Dhaka

2021-2022

Project title: Developing Efficient Technique to Detect False Facts Using Knowledge Graph and Bayesian Network-Based Models

- Developed an algorithm for mining features from knowledge graphs and performed experimental analysis

PUBLICATIONS

Alam, M. T., Ahmed, C. F., Samiullah, M., & Leung, C. K. S. (2023). Discovering Interesting Patterns from Hypergraphs. *ACM Transactions on Knowledge Discovery from Data*.

Alam, M., Roy, A., Ahmed, C. F., Islam, M., Leung, C. K. (2022). UGMINE: utility-based graph mining. *Applied Intelligence*, Vol. 53 (pp. 4968).

Alam, M., Ahmed, C. F., Samiullah, M., Leung, C. K. (2021, May). Discriminating frequent pattern based supervised graph embedding for classification. In *Pacific-Asia Conference on Knowledge Discovery and Data Mining* (pp. 16-28). Springer, Cham.

Alam, M., Ahmed, C. F., Samiullah, M., Leung, C. K. (2021, May). Mining frequent patterns from hypergraph databases. In *Pacific-Asia Conference on Knowledge Discovery and Data Mining* (pp. 3-15). Springer, Cham.

Alam, M. T., Roy, A., Ahmed, C. F., Islam, M. A., Leung, C. K. (2021, December). Mining High Utility Subgraphs. In *2021 International Conference on Data Mining Workshops (ICDMW)* (pp. 566-573). IEEE.

Alam, M. T., Islam, M. M. (2018, September). Bard: Bangla article classification using a new comprehensive dataset. In *2018 International Conference on Bangla Speech and Language Processing (ICBSLP)* (pp. 1-5). IEEE.

AWARDS

Deans Award, awarded by the Faculty of Engineering and Technology, University of Dhaka, in recognition of outstanding academic achievement in Bachelor of Science with honours. 2022

Azfar Alam Memorial Gold Medal, awarded by the University of Dhaka for obtaining the highest CGPA in the Bachelor of Science examination of 2019. 2022

Professor Lutfar Rahman Merit Award, awarded by the Department of Computer Science and Engineering, University of Dhaka for securing the highest CGPA in the Bachelor of Science examination of 2019. 2022

Talentpool Scholarship, awarded by the Directorate of Secondary and Higher Education, Government of Bangladesh for obtaining the highest CGPA in the Bachelor of Science examination. 2022

ACHIEVEMENTS

Champion, Code Samurai Inter-University Hackathon 2019

- A day-long inter-university hackathon organized by a Bangladesh-Japan venture company, BJIT Limited
- A total of 34 teams participated in the hackathon
- Developed a solution for automated traffic management in Dhaka city based on real data

Winner, Student to Startup, Chapter 2 2019

- A startup pitch competition organized by the ICT Division, Bangladesh
- A total of 75 teams with students from 100 universities participated
- Participated in grooming sessions arranged on building startups
- Pitched and developed an image search-based solution for fashion product search engine

GRANTS

Master's Fellowship 2020

- A fellowship worth 3,30,000 BDT
- Awarded by ICT Innovation Fund, ICT Division, Bangladesh
- For conducting master's thesis research work titled "*Hypergraph Mining Methodologies*"

Bangabandhu Innovation Grant 2019

- A grant worth BDT 1 million was awarded by Startup Bangladesh Limited

REFERENCES

Dr. Chowdhury Farhan Ahmed
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Md. Samiullah
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