

Sk Tanzir MEHEDI

I Don't Believe In Magic

Franklin St, Kelvin Grove, Brisbane
Australia

☎ +610 415 471 644

✉ [regular] tanzir.mehedi@hdr.qut.edu.au

🌐 <https://tanzirmehedi.github.io>



Tanzir?

- Excellent academic background and experiences in Machine Learning and security analysis of the software applications using AI-enabled technology.
- Proven ability to work as an individual or a team member with minimal supervision.
- Highly motivated and eagerly interested in learning through the fulfillment of all commitments.

Educational Attainments

Queensland University of Technology, Australia

Ph.D in Computer Science (Running)

🌐 <https://www.qut.edu.au>

📅 Class of 2027

Mawlana Bhashani Science and Technology University, Bangladesh

M.Sc. (Engineering) in Information and Communication Technology

🌐 <https://www.mbstu.ac.bd>

📅 Class of 2019

📅 Result Published: July, 2023

CGPA

4.00 / 4.00

1st Position

Mawlana Bhashani Science and Technology University, Bangladesh

B.Sc. (Engineering) in Information and Communication Technology

🌐 <https://www.mbstu.ac.bd>

📅 Class of 2017

📅 Result Published: August, 2019

CGPA

3.93 / 4.00

1st Position

Govt. Khan Bahadur Ahsanullah College, Khulna, Bangladesh

Higher Secondary Certificate Examination, Jashore Board

🌐 <https://www.kbagc.ac.bd>

📅 Class of 2012

GPA

5.00 / 5.00

Moutala Secondary High School, Satkhira, Khulna, Bangladesh

Secondary School Certificate Examination, Jashore Board

🌐 <https://www.mhs.edu.bd>

📅 Class of 2010

GPA

5.00 / 5.00

Academic Experiences

2/'24- Sessional Academic

Present School of Computer Science, Queensland University of Technology, Australia

- Conduct lectures and practicals on IFB452 Blockchain Technology, CAB441 Networks Security, and IAB330 Applied Internet of Things
- Developed course materials for IFB452 Blockchain Technology and IAB330 Applied IoTs

1/'23-1/'24 Lecturer (Full-time)

Department of CSE, University of Asia Pacific, Dhaka, Bangladesh

- Conduct classes, labs, exams and evaluate students' lab, assignment as well as final answer scripts.
- Conducting undergraduate students' research with the aim of publications.

3/'20-1/'23 **Lecturer (Full-time)** [!\[\]\(50ba758255c5d7cec2761495a31c7c80_img.jpg\)](#),

Department of IT, University of Information Technology and Sciences, Dhaka, Bangladesh

- Conducted classes and evaluated students' final answer scripts.
- Assisted in research activities and supervised undergraduate students working on the research.

Industrial Experiences

9/'19-12/'19 **Data Analyst Engineer (Trainee)** [!\[\]\(0f848bbd71cef6b345273b16f905912a_img.jpg\)](#),

Fujitsu Research Institute, Tokyo, Japan

- I worked on several real-time machine learning projects.
- Lead a small team and work closely to support data scientists.

Research Experiences

1/'18-6/'19 **Research Fellow (Part-time)** [!\[\]\(3211b5d1d968fc1665909b34f9f16010_img.jpg\)](#),

ICT Division, Dhaka, Bangladesh

- I worked on developing a privacy-preserving and dependable identification model for new infections from genome sequences.

Research Interests

I want to move forward myself to the research activities. It gives me immense pleasure, passion, and a realization as well when I go over in the research area of my interest

- Investigate and improve the security of software applications using AI-enabled technology.



Publications

Journals

1. **S. T. Mehedi**, C. Islam, G. Ramachandran, R. Jurdak, "DySec: A Machine Learning-based Dynamic Analysis for Detecting Malicious Packages in PyPI Ecosystem," *arXiv*, 2025.
DOI: 10.48550/arXiv.2503.00324 - arXiv [!\[\]\(3dc92c626ede9fa1b47e2e010104b5c4_img.jpg\)](#)
2. **S. T. Mehedi**, L. F. Abdulrazak, K. Ahmed, M. S. Uddin, F. M. Bui, L. Chen, M. A. Moni, F. A. Al-Zahrani, "A privacy-preserving dependable deep federated learning model for identifying new infections from genome sequences," *Scientific Reports, Nature*, vol. 1, no. 15, p. 7291, 2025.
DOI: 10.1038/s41598-025-89612-x - CrossRef [!\[\]\(71e9a2c5583c3d2a2fe005f4239e5d39_img.jpg\)](#)
3. A. Datta, M. M. Hasan, N. Mahmud, B. J. Ferdosi, R. Islam, Z. Rahman, **S. T. Mehedi**, "Preserving medical information from a doctor's prescription ensures a well-organized medical history," *Computers in Biology and Medicine*, vol. 188, no. 1, p. 109812, 2025.
DOI: 10.1016/j.compbimed.2025.109812 - CrossRef [!\[\]\(5aa86d4510bccda8326cff2d2412c12b_img.jpg\)](#)
4. J. Tanvir, **S. T. Mehedi**, B. K. Paul, M. Morshed, "TrashNeXt: Classification of recyclable water pollutants using deep transfer learning method," *Case Studies in Chemical and Environmental Engineering*, vol. 11, p. 101073, 2024.
DOI: 10.1016/j.cscee.2024.101073 - CrossRef [!\[\]\(1ed15c9cc7c61868b75e5155e86ba5c0_img.jpg\)](#)
5. S. A. Mahmud, N. Islam, Z. Islam, Z. Rahman, **S. T. Mehedi**, "Privacy-Preserving Federated Learning-Based IDS for Cyber-Physical Systems," *Sensors*, vol. 12, no. 20, p. 3194, 2024.
DOI: 10.3390/sensors12203194 - CrossRef [!\[\]\(37547a2901c4baef73624871bb30efd8_img.jpg\)](#)
6. M. W. Hasan, S. Shanto, J. Nayeema, R. Rahman, T. Helaly, Z. Rahman, **S. T. Mehedi**, "An Explainable AI-Based Modified YOLOv8 Model for Efficient Fire Detection," *Mathematics*, vol. 12, no. 19, p. 3042, 2024.
DOI: 10.3390/math12193042 - CrossRef [!\[\]\(4f868c32b7dc0803f13b34236fdbf50e_img.jpg\)](#)

7. S. Gupta, M. R. I. Bhuiyan, S. S. Chowdhury, S. Montaha, R. Rahman, **S. T. Mehedi**, Z. Rahman, "Enhancing Autism Spectrum Disorder Classification with Lightweight Quantized CNNs and Federated Learning on ABIDE-1 Dataset," *Mathematics*, vol. 12, no. 18, p. 2886, 2024.
DOI: 10.3390/math12182886 - CrossRef 
8. **S. T. Mehedi**, A. Anwar, Z. Rahman et al., "Dependable Intrusion Detection System for IoT: A Deep Transfer Learning-based Approach," *IEEE Transactions on Industrial Informatics*, vol. 19, no. 1, pp. 1006-1017, 2022.
DOI: 10.1109/TII.2022.3164770 - CrossRef 
9. Z. Rahman, X. Yi, **S. T. Mehedi** et al., "Blockchain Applicability for the Internet of Things: Performance and Scalability Challenges and Solutions," *Electronics*, vol. 11, no. 2, pp. 1416, 2022.
DOI: 10.3390/electronics11091416 - CrossRef 
10. **S. T. Mehedi**, K. Ahmed, F. M. Bui et al., "MLBioIGE: Integration and Interplay of Machine Learning and Bioinformatics Approach to Identify the Genetic Effect of SARS-COV-2 on Idiopathic Pulmonary Fibrosis Patients," *Biology Methods and Protocols*, vol. 7, no. 1, 2022.
DOI: 10.1093/biomed/bpae013 - CrossRef 
11. M. Billah, **S. T. Mehedi**, A. Anwar et al., "A Systematic Literature Review on Blockchain Enabled Federated Learning Framework for Internet of Vehicles," *IEEE Access*, vol. 1, no. 1, 2022.
DOI: 10.48550/arXiv.2203.05192 - CrossRef 
12. **S. T. Mehedi**, A. Anwar, Z. Rahman et al., "Deep Transfer Learning-based Intrusion Detection System for Electric Vehicular Networks," *Sensors*, vol. 21, no. 14, pp. 4736, 2021.
DOI: 10.3390/s21144736 - CrossRef 
13. **S. T. Mehedi**, A. A. M. Shamim K. Ahmed et al. "Graphene Injected D-Shape Photonic Crystal Fiber for Nonlinear Optical Applications," *Silicon*, vol. 12, pp. 2293-2300, 2020.
DOI: 10.1007/s12633-019-00323-1 - CrossRef 
14. **S. T. Mehedi**, A. A. M. Shamim, M. B. A. Miah, "Blockchain-based Security Management of IoT Infrastructure with Ethereum Transactions," *IJCS*, vol. 2, pp. 189-195, 2019.
DOI: 10.1007/s42044-019-00044-z - CrossRef 

Conferences

1. M. R. I. Evan, M. M. Rahman, **S. T. Mehedi**, A. Nazib, R. Islam, Z. Rahman, "A Modified Feature Selection Algorithm for Intrusion Detection System Based on Student Psychology-Based Optimization with Explainable AI," *2023 IEEE Asia-Pacific Conference on Computer Science and Data Engineering (CSDE)*, Nadi, Fiji, vol. 1, pp. 1-6, 2023.
DOI: 10.1109/CSDE59766.2023.10487669 - CrossRef 
2. J. Ferdows, **S. T. Mehedi**, A. S. M. Hossain et al., "A Comprehensive Study of IoT Application Layer Security Management," *IEEE International Conference for Innovation in Technology (INOCON)*, pp. 1-7, 2020.
DOI: 10.1109/INOCON50539.2020.9298245 - CrossRef 

Book Chapters

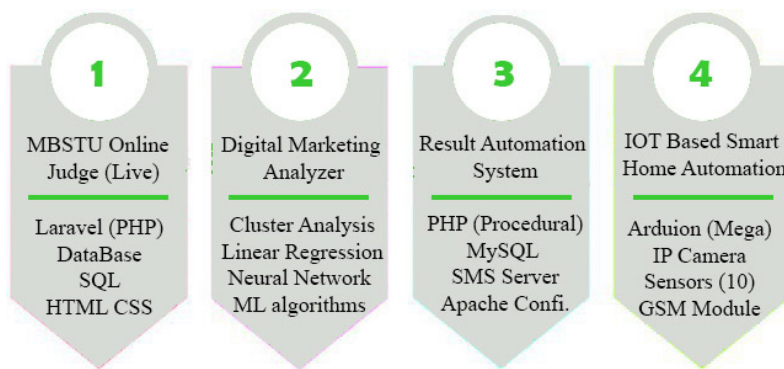
1. A. A. Sefat, G. M. R. I. Rasiq, **S. T. Mehedi**, "CPU Performance Prediction Using Various Regression Algorithms," *Proceedings of International Conference on Machine Intelligence and Data Science Applications, Algorithms for Intelligent Systems*, Springer, Singapore, pp. 163-171, 2021.
DOI: 10.1007/978-981-33-4087-9_14 - CrossRef 

Technical Skills



Research Tools LaTeX, Git, Google Colab, Jupyter Notebook, Diagram, Zotero, MATLAB, Turnitin, Mendeley, Researchrabit, Canva, Connectedpaper, Typeset

Completed Projects



Details [Projects Details and Another Projects](#)

Professional Affiliation

IEEE-R10 Member, The Institute of Electrical and Electronics Engineers (IEEE)
Member Number: 94893789 (2016-Present)

Leading Skills

QUT BA IT Secretary, QUT Bangladeshi Student Association, 2024-25
UAP PCC Convener, UAP Programming Contest Club, 2023
IEEE SB Chair at IEEE MBSTU Student Branch, 2019
IEEE SB Vice-Chair at IEEE MBSTU Student Branch, 2018

Language Skills

Bengali Native language
English IELTS: 7.0 (Speaking-7, Listening-7, Reading-8, and Writing-6.5)
Japanese Level: N5 (Ability to understand some basic Japanese Speaking, Reading, and Writing)

Scholarships, Awards and Prizes

Scholarship A full-funded scholarship by Queensland University of Technology Postgraduate Research Award (QUTPRA) and QUT HDR Tuition Fee Sponsorship, 2024
Award University Academic Genius Award, Mawlana Bhashani Science and Technology University, 2023
Certificate Coach, 2023 ICPC Asia Dhaka Regional Contest, BUET, 2023
Award Best Trainer, Ethical Hacking and Cybersecurity in Power Sector, Operational Perspectives, Bangladesh Power Development Board, 2022
Certificate Coach, BUET Inter-University Programming Contest 2022, BUET CSE Fest, 2022
Award Best Coach, Cefalo CodeFiesta 2022: AUST Inter-University Programming Contest, 2022

Certificate	Coach, 2022 ICPC Asia Dhaka Regional Contest, Green University of Bangladesh, 2022
Fellowship	Fellowship, ICT Division, Bangladesh - Government of The People's Republic of Bangladesh, 2020
Award	Selected as one of the top 5 trainees among 50 IT Engineers, BHTPA and ICT Division, Bangladesh, Government of The People's Republic of Bangladesh, 2019
Scholarships	Faulty of Engineering, Mawlana Bhashani Science and Technology University (MBSTU), B.Sc (Engg.) and M.Sc (Engg.) exams in every year from 2015 to 2020
Award	Project Show (Best Innovative Idea) event at Digital Innovation Fairs, 2018
Certificate	EEE Day Inter-University Project/Thesis Presentation, Bangladesh University of Engineering and Technology (BUET), 2018
Award	Inter-University Programming Contest in the 1st MBSTU CSE Carnival, 2017
Certificate	AB Bank - Islamic University of Technology (IUT) 8th ICT Fest Programming Contest, 2016
Memorandum	Letter of Congratulatory, Science Olympiad Event by the Boson Science Olympiad, Tangail, 2015
Award	Letter of Congratulatory for SSC Scholarship Result by Prothom Alo-Robi Award Ceremony, 2010

Research Profiles

[Google Scholar](#)
[ORCID](#)
[ResearchGate](#)
[Portfolio](#)



<https://tanzirmehedi.github.io>

