

# Sk Tanzir MEHEDI

*I Don't Believe In Magic*

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🌐 <https://tanzirmehedi.github.io>



Cited by: 600+

h-index: 9

A\* Conferences: 1

Q1 Journals: 10

ML/DL Expert

## Tanzir?

- Experienced in ML/DL for AI-enabled software security analysis.
- Proven ability to work independently or collaboratively; highly motivated to learn.

## 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

1<sup>st</sup> 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

1<sup>st</sup> 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- Present **Sessional Academic** 🌐

*School of Computer Science, QUT, Australia*

- Conducted lectures and labs on Blockchain, Network Security, IoT, and Software Management.
- Developed course materials for IFB452 Blockchain Technology and IAB330 Applied IoTs

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

*Department of CSE, UAP, Bangladesh*

- Conducted classes, labs, exams, and evaluate students' assignments and final assessments.
- Supervised undergraduate research and led the UAP PCC Club.

3/'20-1/'23 **Lecturer (Full-time)** 🌐

*Department of IT, UITS, Bangladesh*

- Conducted classes, labs, and evaluated students' scripts.
- Assisted in research and supervised undergraduates on research projects.

## Industrial Experiences

- 9/'19-12/'19 **Data Analyst Engineer (Trainee)** [↗](#),  
Fujitsu Research Institute, Tokyo, Japan
- Worked on multiple real-time ML projects.
  - Led a small team, collaborating closely to support data scientists.

## Research Experiences

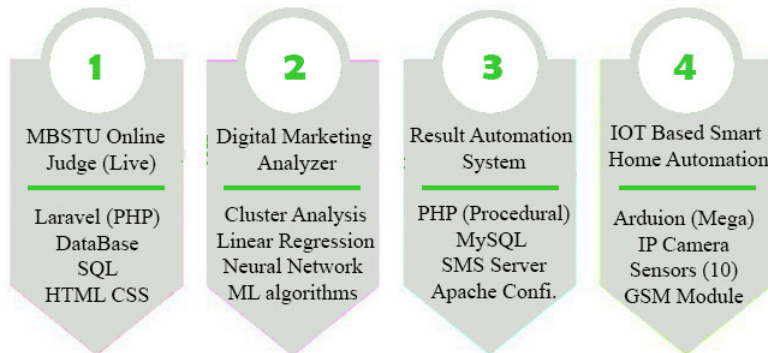
- 11/'25-12/'25 **Researcher (Privacy Summer School)** [↗](#),  
The University of New South Wales (UNSW), Sydney, Australia
- Attended privacy and security sessions led by world-renowned security researchers.
  - Research discussions and collaboration on modern privacy technologies.
- 1/'18-6/'19 **Research Fellow (Part-time)** [↗](#),  
ICT Division, Dhaka, Bangladesh
- Developed a privacy-preserving, dependable identification DL model for new infections.

## 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

- IEEE ComSc Webmaster, IEEE ICBC 2026, Brisbane
- 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)

## Research Interests

**I am passionate about advancing my research, which gives me immense satisfaction and motivation in my areas of interest.**

- Investigate and enhance the security of software applications using AI-enabled technologies.

## 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," *IEEE Transactions on Information Forensics and Security*, vol. 21, pp. 1316-1331, 2026. - CrossRef
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," *Scientific Reports, Nature*, vol. 1, no. 15, p. 7291, 2025. - CrossRef
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. - CrossRef
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. - CrossRef
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, 2024. - CrossRef
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. - CrossRef
7. S. Gupta, M. R. I. Bhuiyan, S. S. Chowha, S. Montaha, R. Rahman, **S. T. Mehedi**, Z. Rahman, "Enhancing Autism Spectrum Disorder Classification with Lightweight Quantized CNNs and Federated Learning on ABIDE-1," *Mathematics*, vol. 12, no. 18, p. 2886, 2024. - 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. - CrossRef
9. Z. Rahman, X. Yi, **S. T. Mehedi** et al., "Blockchain Applicability for the IoTs: Performance and Scalability Challenges and Solutions," *Electronics*, vol. 11, no. 2, pp. 1416, 2022. - 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. - CrossRef
11. M. Billah, **S. T. Mehedi**, A. Anwar et al., "A Systematic Literature Review on Blockchain Enabled Federated Learning Framework for IoVs," *IEEE Access*, vol. 1, no. 1, 2022. - 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. - 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. - 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. - CrossRef [↗](#)

### Conferences

1. **S. T. Mehedi**, R. Jurdak, C. Islam, G. Ramachandran, “QUT-DV25: A Dataset for Dynamic Analysis of Next-Gen Software Supply Chain Attacks,” *Advances in Neural Information Processing Systems 39 (NeurIPS 2025)*, San Diego, USA, 2025. - CrossRef [↗](#)
2. 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. - CrossRef [↗](#)
3. 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. - CrossRef [↗](#)

### Book Chapters


1. A. A. Sefat, G. M. R. I. Rasiq, **S. T. Mehedi**, “CPU Performance Prediction Using Various Regression Algorithms,” *International Conference on Machine Intelligence and Data Science Applications, Algorithms for Intelligent Systems*, Singapore, pp. 163-171, 2021. - CrossRef [↗](#)

## Scholarships, Awards and Prizes

Award	QUT Sage HDR Student Publication Prize, 2025
Scholarship	A full-funded scholarship by QUTPRA and QUT HDR Tuition Fee Sponsorship, 2024
Award	MBSTU Academic Genius Award, 2023
Certificate	Coach, 2023 ICPC Asia Dhaka Regional Contest, BUBT, 2023
Award	Best Trainer, Ethical Hacking and Cybersecurity in Power Sector, BPDB, 2022
Certificate	Coach, BUET IUPC 2022, BUET CSE Fest, 2022
Award	Best Coach, Cefalo CodeFiesta 2022: AUST IUPC, 2022
Certificate	Coach, 2022 ICPC Asia Dhaka Regional Contest, GUB, 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, 2019
Scholarships	MBSTU Faculty of Engineering, B.Sc (Engg.) and M.Sc (Engg.) exams from 2015 to 2019
Award	Project Show (Best Innovative Idea) event at Digital Innovation Fairs, 2018
Certificate	EEE Day Inter-University Project/Thesis Presentation, BUET, 2018
Award	Inter-University Programming Contest in the 1st MBSTU CSE Carnival, 2017
Certificate	AB Bank - IUT 8th ICT Fest Programming Contest, 2016
Memorandum	Letter of Congratulatory, Science Olympiad Event by the Bason 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 [↗](#)

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