TANVINUR RAHMAN SIAM

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EDUCATION

Chittagong University of Engineering and Technology (CUET) Master of Science in Engineering in Computer Science and Engineering	Sept. 2024 – Present In Progress
BRAC University Bachelor of Science in Computer Science and Engineering (Last 4 semester: 3.96)	Jan. 2017 – May 2021 3.50 / 4.00
Dhaka Residential Model College Higher Secondary Certificate (HSC) English Version	Jun. 2013 – Jul. 2015 4.50 / 5.00
Scholars' School and College Secondary School Certificate (SSC) English Version	Jan. 2011 – May 2013 5.00 / 5.00

RESEARCH PUBLICATIONS

Arpita Chakraborty, Utpol Kanti Das, Tanvinur Rahman Siam, and Hasnain Ahmed, "Evaluating the effectiveness of smart classroom interfaces in remote learning environments," in *Proc. 4th Int. Conf. on Advances in Communication Technologies (ICACTCE 2024)*, Lecture Notes in Networks and Systems, vol. 1313, C. Iwendi, Z. Boulouard, and N. Kryvinska, Eds. Cham: Springer, 2025, pp. 173–184. doi: 10.1007/978-3-031-94623-3_15

Tanvinur Rahman Siam, Masum Ahmed Mozumder, Sabbir Ahmed Sakib, Mohammad Shamsul Arefin, and Ahmed Wasif Reza, "Mining association rules for optimizing customer purchase behavior in e-commerce transactions," in *Proc. 2025 IEEE Int. Conf. on Quantum Photonics, Artificial Intelligence, and Networking (QPAIN)*, Saidpur, Bangladesh, Jul. 31–Aug. 2, 2025. doi: 10.1109/QPAIN66474.2025.11172084

Tanvinur Rahman Siam, Md. Sakiluzzaman, Sanji Sahlan Gazi, and Asef Hassan Amiz, "Big data implementation in the tourism industry with the integration of singular value decomposition (SVD)," in *Proc.* 2023 26th Int. Conf. on Computer and Information Technology (ICCIT), Cox's Bazar, Bangladesh, Dec. 13–15, 2023. doi: 10.1109/ICCIT60459.2023.10441537

Faisal Bin Ashraf, Tanvinur Rahman Siam, Zulker Nayen, and Farhan Uz Zaman, "Identification of cardiovascular disorders using machine learning classification algorithms," in *Proc.* 2022 Int. Conf. on Advancement in Electrical and Electronic Engineering (ICAEEE), Gazipur, Bangladesh, Feb. 24–26, 2022. doi: 10.1109/ICAEEE54957.2022.9836433. (2nd Best Paper Award)

Farhan Uz Zaman, Tanvinur Rahman Siam, and Zulker Nayen, "Prediction of vaccination side-effects using deep learning," in *Proc. 2nd Int. Conf. on Machine Learning Techniques and NLP (MLNLP 2021)*, CS & IT Conference Proceedings, vol. 11, no. 14, pp. 295–304, Sept. 18, 2021. doi: 10.5121/csit.2021.111424

TEACHING EXPERIENCE

Lecturer Sept. 2023 – Present

Port City International University (PCIU) Chittagong, Bangladesh

Department of Computer Science and Engineering

Guest Lecturer Jun. 2023 - Dec. 2023

University of Creative Technology Chittagong (UCTC) Chittagong, Bangladesh

Department of Computer Science and Engineering

Academic Tutor (CSE & STEM Subjects)

Jun. 2019 – Present Caretutors (Online Platform) Dhaka, Bangladesh

Providing personalized instruction to English-medium students from foreign colleges and international universities, specializing in core Computer Science courses (Algorithms, AI, Data Science) and advanced Mathematics.

RESEARCH INTERESTS

Artificial Intelligence: Machine Learning, Deep Learning, Transformers, Generative Models

Computer Vision: Image Processing, Pattern Recognition, Medical Imaging

Biomedical Informatics: Healthcare Data Analytics, Predictive Modeling, Mental Health Informatics

Human-Computer Interaction: Smart Classrooms, Educational Technologies, Usability and Engagement

Big Data Analytics: Data Mining, Large-scale Data Processing, Applied Data Science

PROJECTS AND RESEARCH

SQL Injection Prevention using Hyperledger Fabric | Undergraduate Thesis

Jan. 2020 – Jan. 2021

Department of CSE, BRAC University

Dhaka, Bangladesh

Blockchain-based defense against SQL injection using Hyperledger Fabric; designed and evaluated the smart-contract workflow and threat model.

Entry Logger System | Arduino, Proteus

Oct. 2020 - Dec. 2020

Course Project – Digital System Design

Dhaka, Bangladesh

Built a microcontroller-driven secure entry logging prototype; simulation and hardware integration verified in Proteus.

Data Logger System | LabVIEW, Arduino

Jul. 2020 - Oct. 2020

Course Project – Computer Interfacing

Dhaka, Bangladesh

Developed a sensor data acquisition pipeline with live visualization and export via LabVIEW.

Smart Home Appliance Automation | Python

May 2019 - Aug. 2019

Course Project – Microprocessors

Dhaka, Bangladesh

Implemented IoT-style control and scheduling for home appliances; focused on embedded-software interfacing.

HONORS AND AWARDS

AD Scientific Index Ranking

2023 - Present

Consistently ranked in global academic and research impact (Turkey)

Best Paper Award Nov. 2022

ICAEEE 2022 DUET, Gazipur

2nd Best Paper Award at the International Conference on Advancement in Electrical and Electronic Engineering

Distinction Award Jan. 2022 14th Convocation Academic Honors for outstanding CGPA achievement at BRAC University

Vice Chancellor's List & Dean's List

2018 - 2020

Multiple recognitions for outstanding academic performance at BRAC University (4 semesters)

COMMUNITY INVOLVEMENT

Programming Fundamentals

Duke University

Member Apr. 2025 – Present IEEE Bangladesh Section (Membership ID: 96456860) **Ranked Scientist** Oct. 2023 - Present AD Scientific Index (ID: 4949693) Mar. 2024 **Program Committee Member** 5th International Conference on NLP & Information Retrieval (NLPI 2024), Sydney, Australia **Program Committee Member** Feb. 2024 5th International Conference on Signal Processing & VLSI Design (SVC 2024), Vancouver, Canada **Program Committee Member** Oct. 2023 3rd International Conference on Big Data, IoT & NLP (BINLP 2023), Sydney, Australia **Program Committee Member** May 2023 4th International Conference on Semantic & NLP (SNLP 2023), Vancouver, Canada STUDENT LEADERSHIP & VOLUNTEERING Advisor & Volunteer Summer 2019 BRACU Leadership Development Forum – Fresher Student Mentorship Dhaka, Bangladesh Volunteer Fall 2019 13th Convocation, BRAC University Dhaka, Bangladesh SKILLS Languages: Bengali (Native), English (Professional – B2), French (Basic – A1) Programming & Data Science: Python (NumPy, Pandas, SciPy, Matplotlib, Scikit-learn, TensorFlow, PyTorch), Java, PHP, SOL, HTML5/CSS3 Research & Documentation: LaTeX, Overleaf, Microsoft Office Suite, Reference Management (Mendeley, Zotero) Development Environments: Visual Studio, Eclipse, CLion, MATLAB, NetBeans, DataGrip Research Tools & Platforms: Hadoop, Spark, Wireshark, LabVIEW, MATLAB Simulink CERTIFICATIONS **IELTS** Jan. 2022 Overall Band: 6.5 (Listening: 6.5, Speaking: 6.5, Writing: 6.0, Reading: 6.0) Development of OBE Curriculum for Quality Improvement in Higher Education Mar. 2024 Institutional Quality Assurance Cell (IQAC), Port City International University Chittagong, Bangladesh Nov. 2023 **Faculty Training & Development Program** Institutional Quality Assurance Cell (IQAC), Port City International University Chittagong, Bangladesh **Python Data Structures** May 2020 University of Michigan Coursera Introduction to SQL Apr. 2020 University of Michigan Coursera

May 2020

Coursera

REFERENCES

Dr. Kaushik Deb

Professor, Department of Computer Science and Engineering, CUET

LINK: cuet.ac.bd/members/498 EMAIL: debkaushik99@cuet.ac.bd

Dr. Muhammad Iqbal Hossain

Associate Professor, BRAC University

LINK: bracu.ac.bd/about/people/muhammad-iqbal-hossain-phd

EMAIL: iqbal.hossain@bracu.ac.bd

Sowmitra Das

Assistant Professor, Port City International University (PCIU)

LINK: portcity.edu.bd/15/Teacher/sowmitra-das

EMAIL: sowmitracsecu@gmail.com

DECLARATION

I certify that the information provided in this curriculum vitae is accurate and complete to the best of my knowledge.

Tanvinur Rahman Siam Date: September 30, 2025

Conference Papers

Tanvinur Rahman Siam, Arafat Ibnul Bashar, Tanvir Ahmed, and Sidratul Muntaha Trina, "Regulating artificial intelligence in Bangladesh: Towards a legal framework for ethical and secure implementation," in *Proc. IEEE Int. Conf. on Quantum Photonics, Artificial Intelligence, and Networking (QPAIN)*, Rangpur, Bangladesh, Jul. 31–Aug. 2, 2025. doi: 10.1109/QPAIN66474.2025.11171844.

Nurul Absar, Tanvinur Rahman Siam, Md. Mahbubul Islam, and Abdul Kayum, "Transformer and deep learning-based depression detection from low-resource language," in *Proc. 2nd Int. Conf. on Next-Generation Computing, IoT and Machine Learning (NCIM)*, Gazipur, Bangladesh, Jun. 27–28, 2025. IEEE. doi: 10.1109/NCIM65934.2025.11160144.

Chowdhury Mohammad Mehedi, Farzina Akther, Md. Akash Rahman, Tanvinur Rahman Siam, Al-Muntasir Billah Alvi, and Sumit Das Gupta, "Smart retention: AI-driven approaches for predicting student dropouts in higher education in Bangladesh," in *Proc. IEEE Int. Conf. on Electrical, Computer and Communication Engineering (ECCE)*, Chittagong, Bangladesh, Feb. 13–15, 2025. doi: 10.1109/ECCE64574.2025.11013481.

Wasee Ahmed, Deboky Saha, S. M. Azmi Hoque, Suvro Debnath, and Tanvinur Rahman Siam, "Remote monitoring and control of appliances using a state machine in an IoT network," in *Proc. 8th Int. Conf. on Computer Technology Applications (ICCTA)*, Vienna, Austria, Sept. 20, 2022, pp. 275–280. doi: 10.1145/3543712.3543713.

Anindya Das, Zannatun Nayeem, Abu Saleh Faysal, Fardoush Hassan Himu, and Tanvinur Rahman Siam, "Health monitoring IoT device with risk prediction using cloud computing and machine learning," in *Proc. National Computing Colleges Conference (NCCC)*, Taif, Saudi Arabia, Mar. 27–28, 2021. doi: 10.1109/NCCC49330.2021.9428798.

Theses

Md. Minhazul Billah, Adnan-Bin Zahir, Syeda Lamia Tabassum, Tanvinur Rahman Siam, and Md. Nefaur Rahman Labib, "SQL injection prevention using Hyperledger Fabric," B.Sc. Thesis, Dept. of Computer Science and Engineering, BRAC University, Dhaka, Bangladesh, Jan. 2021. Available: http://hdl.handle.net/10361/15346.

A complete and updated list of publications is available on my **Google Scholar Profile**.