Md Mahedi Hassan

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RESEARCH INTERESTS

- Extended Reality, Privacy and Security, Machine Learning, Deep Learning, Image Processing, Computer Vision

EDUCATION

PhD (Ongoing) in Computer Science August 2025 – Present
Kennesaw State University, GA, USA CGPA: 4.00/4.00 (Till 4th Semester)

BSc in Computer Science and Engineering December 2016 – April 2022
Khulna University of Engineering & Technology, Khulna - 9203, Bangladesh CGPA: 3.81/4.00 (3.98 after evaluation)

RESEARCH EXPERIENCE

Kennesaw State University | *Graduate Research Assistant* August 2025 - Present

- Working as a part of VeriPro: Verified Probabilistic Cognitive Reasoning for Tactical Mixed Reality Systems [Funded By: Defense Advanced Research Projects Agency (DARPA)]
- Privacy Preserving Techniques for Extended Reality
- Four articles published in IEEE ISMAR, IEEE VR, IEEE TVCG, and ACM MobiHoc

University of Asia Pacific | *Undergrad Thesis Supervisor* January 2023 – December 2025

- Ensemble Learning Based Ventilator-Associated Pneumonia Prediction Within 24 Hours
- An Ensemble Learning Based Approach to Predict the Risk of Cardiovascular Disease
- Skin Lesion Classification using Deep Learning Models
- One article published in a conference, and one published in a journal

Khulna University of Engineering & Technology | *Undergrad Thesis and Project* August 2018 – January 2022

- Chronic Kidney Disease Prediction using Machine Learning Methods
- One article published in a conference

PUBLICATIONS

- Ahmed, N., **Hassan, M.M.**, Wu, P., Huang, K., Zhu, M., Archer, J., Kwasinski, J., Bailey, P.S., Derby, J.L., Lan, T. and Li, B. (2026, October). **Believe It. Engage It.: A Mixed Reality Dataset of Engagement, Cognitive Load, Physical Load, Cybersickness, Task Performance Under Cognitive Attack**. In 2026 IEEE International Symposium on Mixed and Augmented Reality (ISMAR) (pp. 261-271). IEEE.
- Wu, P., Huang, K., Zhu, M., Zhou, Z., Jiang, J., Ahmed, N., **Hassan, M.M.**, Hong, S., Li, B., Islam, R. and Lan, T. (2026). **Robust Engagement Estimation in Mixed Reality Under Cognitive Attack**. In IEEE Transactions on Visualization and Computer Graphics (TVCG). IEEE.
- Ahmed, N., **Hassan, M. M.**, Hossain, M. M., Shadin, N. S., Zhang, X., & Islam, R. (2026, March). **Obscuring the 'Who,' Preserving the 'What': Targeted Eye-tracking Feature Obfuscation in Virtual Reality for Privacy-Utility Balance**. In 2026 IEEE Conference on Virtual Reality and 3D User Interfaces (VR) (pp. 250-260). IEEE.
- Shadin, N. S., Ahmed, N., **Hassan, M. M.**, Islam, R., & Zhang, X. (2025, October). **YouKnowWho: Interpretable framework for classifying gender from behavioral motion data in extended reality (XR)**. In *Proceedings of the 26th International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc '25)* (pp. 485-490). ACM.
- Ahmed, F., Siam, J. H., **Hassan, M. M.**, Adnan, M. A., & Rahman, M. T. (2024, October). **Ensemble Learning Based Ventilator-Associated Pneumonia Prediction Within 24 Hours**. In *Proceedings of the 3rd International Conference on Computing Advancements (pp. 705-712)*. ACM.
- Rahman, M. T., Haque, M., Khan, A., Mitu, S. A., & **Hassan, M. M.** (2024). **Design and Performance Analysis of Underwater Light Communication System**. *International Journal of Microwave & Optical Technology,* 19(2) (pp. 218-225).
- **Hassan, M. M.**, Ahamad, T., & Das, S. (2022, December). **An ensemble learning approach for chronic kidney disease prediction using different machine learning algorithms with correlation based feature selection**. In *2022 25th International Conference on Computer and Information Technology (ICCIT) (pp. 242-247)*. IEEE.

PROFESSIONAL EXPERIENCE

Graduate Research Assistant | *Kennesaw State University, GA, USA* August 2025 - Present

- Conducting comprehensive literature reviews to support ongoing research projects
- Data collection and processing data for further analysis
- Developing analytical models and interpreting results to derive research insights

Lecturer (On Study Leave) | *Department of CSE, University of Asia Pacific, Bangladesh* August 2022 - Present

- **Courses Taught:** Peripheral and Interfacing, Software Development, Structured Programming, Computer Graphics, Numerical Methods, Machine Learning, Digital Logic Design, Bioinformatics, Technical Writing and Presentation
- Member of Curriculum Development Committee and Routine Development Committee
- Advisor of a group of students
- Convener of Math Club of CSE, UAP

IELTS Trainer (Part-time) | *PATRON IELTS, Dhaka, Bangladesh* March 2023 – July 2025

- Preparing and assessing mock tests for students
- Coordinating the other instructors to maintain uniformity of classes

Support Instructor (Part-time) | *Ostad Limited, Dhaka, Bangladesh* October 2023 – March 2024

- Supporting students facing problems in the course "Software Quality Assurance"
- Preparing quizzes, assignments, and live test questions
- Evaluating answer scripts of students

PROJECTS

- **Dynamic Disaster Response Network (C#, Visual Studio):** Designed with graph algorithms for Atlanta city
- **Prime Computers (ASP.NET, C#):** An e-commerce website developed for a computer store
- **Tuition4U (Swift):** A tuition finder app developed for the iOS platform
- **Quizzy (Python, NLP):** A software that automatically generates quiz questions and validates the answers tolerating typos
- **Box Shooter (C#, Unity 3D):** A shooting game where player shoots boxes to earn points
- **Flip N Win (C++, Game Theory):** A game where the player plays against an artificially intelligent agent to win

SKILLS

Programming Languages:	C, C++, C#, Python, Java, Swift
DBMS:	ORACLE, My-SQL
Game Development:	Unity3D
Hardware:	Arduino, Raspberry Pi
Others:	OpenCV, OpenGL

STANDARDIZED TEST SCORES

International English Language Testing System (IELTS) December 2024

- Overall – 8.0 (Listening 8.5, Reading 8.5, Writing 7.0, Speaking 7.0)

HONORS & ACCOLADES

Dean's 4.00 Club (Offered to GPA of 4.00 achievers) | *Kennesaw State University*

- Fall 2025, Spring 2026, Summer 2026

Dean's Award (Offered to average GPA of 3.75 or above achievers) | *Khulna University of Engineering & Technology*

- Achieved an average GPA of 3.93, 3.94, and 3.79 out of 4.00 in sessions 2019-2020, 2018-2019, and 2017-18, respectively

Dr. Fatema Rashid Best Paper Award and Best Presentation Award

- 2022 25th International Conference on Computer and Information Technology (ICCIT)

OTHER ACTIVITIES

Joint Organizing Secretary | *Bangladesh Students Association – KSU* Fall 2026 - Present

- Organized freshers receptions and traditional Bengali event celebrations

Reviewer | *3rd International Conference on Computing Advancements (ICCA)* 2024

- Reviewed six articles for the conference

Convener | *Math Club of CSE, UAP* September 2022 – July 2025

- Arranged the 1st, 2nd, and 3rd Intra University MathFest of UAP

Host Office Volunteer Coordinator | *ICPC World Finals Dhaka 2022* November 2022

- Coordinating over 100 student volunteers for the championship