

RABAB KHAN RONGON

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RESEARCH INTEREST

Human Computer Interaction, Artificial Intelligence, Machine Learning, Software Test Engineering.

ACADEMIC CREDENTIALS

M.Sc. Military Institute of Science and Technology, Dhaka, Bangladesh *April 2024 - Continuing*
Department: Computer Science and Engineering || Major: Artificial Intelligence || CGPA: 3.50
Selected Course Work: Advanced AI, Advanced ML, Neural Networks, Data Mining, Fuzzy Logic, HCI

B.Sc. International University of Business Agriculture and Technology, Dhaka, Bangladesh
Department: Computer Science and Engineering || CGPA: 3.21 out of 4.00 *Graduation: Jan 2024*
Selected Course Work: OOP in C++, Data Structure & Algorithm, DBMS, Software Engineering, System Design, Theory of Computation, Computer Architecture, Operating Systems, Micro-processor.

PUBLICATIONS

Undergraduate Thesis

[1] *Implementation of Energy Efficiency Cloud Data Center Architecture Model using Green Cloud Simulator for National Data Center of Bangladesh* ☐
Supervised by: Krishna Das ☐

Journal Paper

[2] **Rabab Khan Rongon**, Krishna Das, “*An Energy Efficient Cloud Data Center Architectural Model for the National Data Center of Bangladesh*” in "Journal of Discrete Mathematical Sciences and Cryptography", Volume 27, Issue 6, Page 1905-1917 (Scopus Indexed Q1 Quartile, Cite Score: 3.1) ☐

[3] M.A Eti, **Rabab Khan Rongon**, “*Investigating tRNA-Derived Small RNA Expression Patterns and Bioinformatics Analysis in Epicardial Fat of Atrial Fibrillation Patients*” in International Journal for Research in Applied Science and Engineering Technology (IF: 7.538) ☐

Book Chapter

[4] A. Islam, S. Zaman, **Rabab Khan Rongon**, S.T. Sharif, H. Jahan, “*An Attention-Driven Deep Learning Model for Predicting Human Life Expectancy*” in 3rd International Conference on Big Data, IoT and Machine Learning (BIM 2025). (In Press)

Conference Paper

[5] **Rabab Khan Rongon**, M. Akhteruzzaman, S.T. Sharif, K. Das, “*Analyzing Risk Level from RoI and VoI for Robust Data Privacy using Fuzzy Inference System*” in “IEEE 4th International Conference on Robotics, Electrical and Signal Processing Techniques 2025” ☐

- [6] **Rabab Khan Rongon**, S.K. Prangon, K.Das, S.T. Sharif, A. Ashraf, “*Evaluating the Accessibility of Online Pharmacies' Mobile Applications in Bangladesh using Heuristic and Semiotic Analysis*” in 2025 IEEE International Conference on Quantum Photonics, Artificial Intelligence, and Networking
- [7] **Rabab Khan Rongon**, S.T. Sharif, A. Ashraf, M.N Islam “*Improving CAPTCHA Systems for Better Usability and Accessibility in Mobile Applications*” in IEEE 2nd International Conference on Computing, Applications, and Systems. (In Press)
- [8] S.K. Prangon, **Rabab Khan Rongon**, K.Das, S.T. Sharif, A. Ashraf, “*A Real-Time Automated Traffic Violations Detection System for Motorcycles Using YOLOR*” in 4th IEEE International Conference on Robotics, Automation, Artificial-intelligence and Internet-of-Things. (Accepted)
- [9] **Rabab Khan Rongon**, MS Zaman, S.T. Sharif, S.K Prangon, K.Das “*Deep Learning-Based Recognition of Bangla Sign Language Gestures with CNN, VGG16, and MobileNet*” in 6th IEEE International Conference on Telecommunications and Photonics (ICTP) 2025. (Accepted)
- [10] **Rabab Khan Rongon**, Krishna Das, “*Obstacle for implementing sustainable computing in Bangladesh and approach to being sustainable through green cloud computing methodology*” in 4th International Conference on Sustainable Computing and Management (SUSCOM-2022) Aug. 23-24, 2022.

MANUSCRIPTS UNDER REVIEW

- [11] *Enhancing Maritime Fuel-use Efficiency and Reduction of Carbon Emission: An Experient with Deep Reinforcement Learning Agent* – under review Gazi University Journal of Science.
- [12] *Energy-Aware Data Center Management: A Sustainable Approach to Reducing Carbon Footprint* – under review in Next Energy (Science Direct).
- [13] *Predicting Renewable Energy Usage in Bangladesh Using Environmental and Climatic Indicators: A District-Level Analysis* - under review for the 28th IEEE International Conference on Computer and Information Technology

PROFESSIONAL EXPERIENCE

AskTuring AI <i>Applied AI Test Engineer III</i>	July 2025 – Present
Agency Handy <i>Software Engineer II, QA</i>	Aug 2023 – July 2025
Onethread Technologies Limited <i>Software Engineer, QA</i>	Feb 2022 – July 2023

RESEARCH EXPERIENCE

Miyan Research Institute, IUBAT
RA – Research Assistant

Jan 2024 – Oct 2024

TEACHING EXPERIENCE

IUBAT- International University of Business Agriculture and Technology
Department of Computer Science and Engineering
TA – Teaching Assistant, CSC 231 - Fundamentals of Electronics

Feb 2021 – July 2022

Solution Center of Science and Mathematics
Founder and Senior Instructor of ICT

Feb 2019 – Feb 2022

TECHNICAL SKILLS

- **Programming & Scripting Languages:** Python, C++, MATLAB, SQL
- **Machine Learning & Data Mining:** scikit-learn, pandas, NumPy, TensorFlow.
- **Research & Simulation Tools:** MATLAB, Green Cloud Simulator, CloudSim, NS2
- **Data Visualization & Analytics:** Power BI, Excel, Google Data Studio, Python Visualization Libraries
- **UX & Accessibility Evaluation:** Heuristic Evaluation, Semiotic Analysis, UX Audits, Figma.
- **Automation & Quality Assurance:** Selenium, Postman, REST Assured, Swagger.
- **Cloud & Database Technologies:** MySQL, MongoDB, AWS (basic)
- **Version Control & DevOps:** Git, GitHub, Jenkins (CI/CD)
- **Academic Writing & Reference Tools:** LaTeX, Overleaf, Microsoft Office

SCHOLARSHIPS

- **Professor Mahmuda Khanam Scholarship:** For Academic performance at IUBAT *Fall 2020*
- **RL (Bob) Southern Scholarship:** For Academic performance at IUBAT *Summer 2021*
- **Undergraduate Research Publication Grant from Miyan Research Institute, IUBAT** *Fall 2024*

REFERENCES

Dr. Muhammad Hasibur Rashid Chayon

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Letter of Recommendation r7

Mr. Krishna Das

Assistant Professor of Computer Science, International University of Business Agriculture & Technology
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Lt Col Muhammad Nazrul Islam, PhD

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