RABAB KHAN RONGON

Dhaka-1360, Bangladesh || rababrongon@gmail.com || (+880) 1760 533424 || https://rababrongon.me ⧉

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.K. Prangon, K.Das, S.T. Sharif, A. Ashraf, "*Improving CAPTCHA Systems for Better Usability and Accessibility in Mobile Applications*" in IEEE 2nd International Conference on Computing, Applications, and Systems. (Accepted)

[8] **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

[8] *Enhancing Maritime Fuel-use Efficiency and Reduction of Carbon Emission: An Experient with Deep Reinforcement Learning Agent* – under review Gazi University Journal of Science.

[9] *Energy-Aware Data Center Management: A Sustainable Approach to Reducing Carbon Footprint* – under review in Next Energy (Science Direct).

[10] An Explainable AI-Based Multi-Objective Recommendation Framework for Cloud Service Provider Selection – Under Experiment

[11] *A Real-Time Automated Traffic Violations Detection System for Motorcycles Using YOLOR* – under review for the 4th IEEE International Conference on Robotics, Automation, AI and Internet-of-Things.

[12] *Deep Learning-Based Recognition of Bangla Sign Language Gestures with CNN, VGG16, and MobileNet* – under review for the IEEE Conference on Biomedical Engineering, Computer and Information Technology for Health 2025

[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   *July 2025 – Present*
Applied AI Test Engineer III

Agency Handy   *Aug 2023 – July 2025*
Software Engineer II, QA

Onethread Technologies Limited   *Feb 2022 – July 2023*
Software Engineer, QA

RESEARCH EXPERIENCE

Miyan Research Institute, IUBAT *Jan 2024 – Oct 2024*
RA – Research Assistant

TEACHING EXPERIENCE

IUBAT- International University of Business Agriculture and Technology *Feb 2021 – July 2022*
Department of Computer Science and Engineering
TA – Teaching Assistant, CSC 231 - Fundamentals of Electronics

Solution Center of Science and Mathematics *Feb 2019 – Feb 2022*
Founder and Senior Instructor of ICT

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
Associate Professor of Computer Science, International University of Business Agriculture & Technology
Email: chayon@iubat.edu
Letter of Recommendation ⬀

Mr. Krishna Das
Assistant Professor of Computer Science, International University of Business Agriculture & Technology
Email: krishna.das@iubat.edu
Letter of Recommendation ⬀

Lt Col Muhammad Nazrul Islam, PhD
Associate Professor of Computer Science and Engineering, Military Institute of Science and Technology
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