

Taminul Islam

B.Sc.(Computer Science and Engineering)

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EDUCATION

Daffodil International University

Dhaka, Bangladesh

B.Sc. in Computer Science and Engineering; **GPA: 3.52/4.00**

Feb 2022

Got a full free scholarship; UG -Research Assaintant

Thesis: Review analysis of ride-sharing application using Bi-LSTM based RNN model- Bangladesh Perspective
(Advisor: Most. Hasna Hena)

RESEARCH INTEREST

My research interest lies in exploring the applications of **machine learning** across various sectors. I aim to investigate the potential of these technologies in improving efficiency, analysis, and problem-solving in the following areas:

- Healthcare Informatics
- Cybersecurity
- Plants Disease Prediction
- Natural Language Processing

STANDARDIZED AND ENGLISH PROFICIENCY TESTS

Graduate Record Examination (GRE)

Appeared on 12 July, 2023

Verbal: 168, Quantitative: 157, Analytical: 4, Overall: 329

International English Language Testing System (IELTS)

Appeared on 2 September, 2023

Listening: 8.0, Reading: 7.0, Writing: 8.0, Speaking: 6.0, Overall Band Score: 7.5

Duolingo English Test (DET)

Appeared on 21 December, 2022

Literacy: 135, Comprehension: 135, Conversation: 115, Production: 100, Overall: 130

EXPERIENCE

ServicEngine Ltd.

Dhaka, Bangladesh

Executive

August 2022 - Present

- Developing and implementing a technology strategy aligned with the company's overall goals and objectives.
- Leading digital transformation initiatives, including migrating to cloud-based systems, implementing new collaboration tools, and developing mobile and web applications.
- Overseeing the IT department, including hardware, software, network and security infrastructure, and telecommunications systems.

Quadque Technologies Ltd.

Dhaka, Bangladesh

Research and Development Assistant

Feb 2022 - Jun 2022

- Conducted research to identify new products, technologies, or services that align with the organization's strategic goals.
- Developed and implemented research plans and methodologies to achieve project goals and objectives.
- Wrote reports, presentations, and technical documentation to communicate research findings to stakeholders.
- Managed research projects, including project timelines, budget, and resources, and ensuring that projects are completed on time.

(Advisor: Most. Hasna Hena, Assistant Professor, DIU
Omar Sharif, Lecturer, DIU)

- Collaborated with research projects by coding, writing, and mentoring juniors.
- Developed and implemented research plans and methodologies to achieve project goals and objectives.
- Conducted data collection, analysis, and utilized statistical tools.
- Assisted in literature reviews and research support.
- Attended conferences, workshops and presented there our research work

TEACHING EXPERIENCE

Department of CSE, Daffodil International University
Student Prefect / Undergraduate Teaching Assistant (Part-Time)

Dhaka, Bangladesh
12 Months

- Algorithms & Algorithms Lab
- Artificial Intelligence & Artificial Intelligence Lab
- Programming and Problem-Solving Lab

Time frame: 4 months each course.

JOURNAL ARTICLE

1. Talukder, M. S. H., Sulaiman, R. B., Chowdhury, M. R., Nipun, M. S., & **Islam, T.** (2023). PotatoPestNet: A CTInceptionV3-RS-Based Neural Network for Accurate Identification of Potato Pests. *Smart Agricultural Technology*, 100297. [\[Paper\]](#)

PEER-REVIEWED CONFERENCE PAPERS (SCOPUS & WOS INDEXED)

1. **Islam, T.**, Vuyia, A., Hasan, M., & Rana, M. M. (2023, April). Cardiovascular Disease Prediction Using Machine Learning Approaches. In *2023 International Conference on Computational Intelligence and Sustainable Engineering Solutions (CISES)* (pp. 813-819). IEEE. [\[Paper\]](#)
2. Rahman, M. H., **Islam, T.**, Rana, M. M., Tasnim, R., Mona, T. R., & Sakib, M. M. (2023). Machine Learning Approach on Multiclass Classification of Internet Firewall Log Files. In *2023 International Conference on Computational Intelligence and Sustainable Engineering Solutions (CISES)* (pp. 358-364). IEEE. [\[Paper\]](#)
3. Sheakh, M. A., Tahosin, M. S., Hasan, M. M., **Islam, T.**, Islam, O., & Rana, M. M. (2023, May). Child and Maternal Mortality Risk Factor Analysis Using Machine Learning Approaches. In *2023 11th International Symposium on Digital Forensics and Security (ISDFS)* (pp. 1-6). IEEE. [\[Paper\]](#)
4. Islam, M. T., Ahmed, T., Rashid, A. R., **Islam, T.**, Rahman, M. S., & Habib, M. T. (2022, April). Convolutional Neural Network Based Partial Face Detection. In *2022 IEEE 7th International conference for Convergence in Technology (I2CT)* (pp. 1-6). IEEE. [\[Paper\]](#)
5. **Islam, T.**, Kundu, A., Ahmed, T., & Khan, N. I. (2022, April). Analysis of Arrhythmia Classification on ECG Dataset. In *2022 IEEE 7th International conference for Convergence in Technology (I2CT)*(pp. 1-6). IEEE. [\[Paper\]](#)
6. **Islam, T.**, Hosen, M. A., Mony, A., Hasan, M. T., Jahan, I., & Kundu, A. (2022, January). A proposed Bi-LSTM method to fake news detection. In *2022 International Conference for Advancement in Technology (ICONAT)* (pp. 1-5). IEEE. [\[Paper\]](#)

PEER-REVIEWED BOOK CHAPTERS (SCOPUS & WOS INDEXED)

1. **Islam, T.** "Kundu, A., Lima, R. J., Hena, M. H., Sharif, O., Rahman, A., & Hasan, M. Z. (2023). Review Analysis of Ride-Sharing Applications Using Machine Learning Approaches: Bangladesh Perspective." In *Computational Statistical Methodologies and Modeling for Artificial Intelligence* (pp. 99-122). CRC Press. [\[Paper\]](#)
2. **Islam, T.** "Kundu, A., Islam Khan, N., Chandra Bonik, C., Akter, F., & Jihadul Islam, M. (2022). Machine Learning Approaches to Predict Breast Cancer: Bangladesh Perspective." In *Ubiquitous Intelligent Systems: Proceedings of Second ICUIS 2022* (pp. 291-305). Singapore: Springer Nature Singapore. [\[Paper\]](#)

ONGOING RESEARCH WORKS

1. A deep learning approach to tomato leaf disease detection using EfficientNetB3. (**Under Review** - *Ecological Informatics* - Q1)
2. A Proposed Method for the Early Prediction of Heart Attacks using Machine Learning Algorithms: A Comparative Analysis. (**Under Review** - *Journal of Computational Science* - Q1)
3. A Review on Security Threats and Vulnerabilities of Autonomous Vehicles with Machine Learning Defensive Techniques. (**Under Review** - *IEEE Micro* - Q2)
4. Predictive Modeling for Breast Cancer Classification in the Context of Bangladeshi Patients: A Supervised Machine Learning Approach. (**Under Review** - *Scientific Reports* - Q2)
5. A Comparative Analysis between the Lexicon based and Deep Learning based Approaches in Sentiment Analysis on Twitter Data (**Submitted** - *Data & Knowledge Engineering* - Q2)
6. Optimizing Brain Tumor Classification through Feature Selection and Hyperparameter Tuning in Machine Learning Models (**Submitted** - *Medical & Biological Eng & Computing* - Q2)
7. Machine Learning Approach Analysis for Early-Stage Liver Disease Prediction in the Context of Bangladesh and India Computer and Informatics Engineering **In Press** - *World Conference on Information Systems for Business Management - ISBM 2023*
8. Early-Stage Diabetes Risk Prediction Using Supervised Machine Learning Algorithms **Submitted** - *2nd International Conference on Futuristic Technologies*
9. Improving Hepatitis C Diagnosis using Machine Learning Techniques: An Experimental Analysis - **Submitted** - Taylor & Francis - *Book: AI for Intelligent Computing: Future Trends and Applications*
10. Data Traffic Management in AI-IoT Network to Reduce Congestion - **Submitted** - Taylor & Francis - *Book: AI for Intelligent Computing: Future Trends and Applications*
11. AI-Enabled Risk Assessment and Safety Management in Construction - **Submitted** - Springer - *Book: Ethical Artificial Intelligence in Power Electronics*

RESEARCH ACTIVITIES TO COMMUNITY

1. Reviewer at International Journal of Machine Learning and Cybernetics (JMLC)
2. Program Committee Member of IICAIET2023: 2023 IEEE International Conference on Artificial Intelligence in Engineering and Technology
3. Reviewer at Journal on Internet of Things (Tech Science Press)
4. Reviewer at Journal on Artificial Intelligence (Tech Science Press)

SELECTED PRESENTATION & TALKS

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|---|---------------|
| 1. How to write book chapter efficiently - Virtual seminar (20 international students) | July 16, 2023 |
| 2. Road to become a productive researcher in student life - Virtual workshop | Apr 2, 2023 |
| 3. Prepare yourself for the final defense battle - Virtual workshop conducted by Daffodil University - Research Wing (20 local students) | Sep 28, 2022 |
| 4. University Report Writing Workshop - Virtual Workshop | Jun 11, 2022 |
| 5. How to read & write research papers. Preparation for defense - Virtual seminar with 25 young researchers of the various universities of Bangladesh | Sept 10, 2021 |
| 6. How to start research in student life - Virtual discussion with Chinese students | Jun 2, 2021 |
| 7. Is Simulation Blessing or Curse? - A presentation speech at Daffodil International University | Apr 16, 2021 |
| 8. Effective Presentation Skills - Virtual workshop conducted by State Islamic College of Majene, Indonesia (30 International Students) | Feb 11, 2021 |
| 9. Time & Financial Management - Virtual class of Art of Living course; conducted by Daffodil International University (45 Bangladeshi Students) | Aug 13, 2020 |
| 10. The efficient way of searching on Google - A presentation speech at Daffodil International University | Jul 10, 2020 |
| 11. Computer VS Human Brain - A presentation speech at Daffodil International University | Nov 9, 2020 |
| 12. Artificial Intelligence - A presentation speech at Daffodil International University | Feb 17, 2020 |
| 13. Shift of the next generation - A presentation speech at Daffodil International University | Dec 10, 2019 |

AWARD & ACHIEVEMENTS

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| 1. Full Free Scholarship at Daffodil International University | 2021 |
| 2. Best Mobile BOT Award (CoronaThon), Daffodil International University | 2020 |
| 3. Champion (Idea Contest), ICT Carnival, Daffodil International University | 2019 |
| 4. Semifinalist (Hackathon), Daffodil International University | 2019 |
| 5. Champion (Debate), Inter Department Debate Competitions, Daffodil International University | 2018 |

PROGRAMMING LANGUAGES, TOOLS & PLATFORMS

1. Python, Pytorch, Tensorflow, Numpy, Matplotlib
2. Google Colab, Jupyter, Pycharm Anaconda, Visual Studio, Matlab
3. Orange, SPSS, Asana, Stata, Mendeley, Scispace, Zotero, NVivo
4. Adobe Photoshop, Adobe Premier Pro
5. Latex, Trinka, MS Office

EXTRA-CURRICULAR ACTIVITIES

1. International player & coach (Sports) - Asian Throwball Association.
2. Sports skilled in - Soccer, Cricket, Badminton, Athletics, Volleyball.
3. 3 major programs organising chair of Daffodil International University Rotaract Club
4. Member of Rotary International
5. International Volunteer of Asian University Presidents Forum (AUPF) 2019.
6. Debate, Cultural Activities, Program Management
7. Founding General Secretary and Trainer of Dhaka Collegiate School Debating Club (DCSDC)
8. Member of IEEE & Computer Society

STUDENTS MENTORED

1. Md. Alif Sheakh (DIU, 2023), Research Paper: "A Harmful Disorder: Predictive and Comparative Analysis for Fetal Anemia Disease by Using Different Machine Learning Approaches"
2. Shuvro Ahmed (BRAC University, 2023), Project: "Dengue prediction using Linear hybridization"
3. Rishalatun Jannat Lima (DIU, 2023), Research Paper: "A Comparative Analysis between the Lexicon-based and ML-based Approaches in Sentiment Analysis on Twitter Data"
4. Sadia Afrin Rimi (DIU, 2023), Research Paper: "A supervised machine learning approach on cardiovascular disease prediction"
5. Md. Shamiul Karim (DIU, 2023), B.S.c Thesis: "Predicting the risk of early-stage diabetes using machine learning techniques"
6. Afrin Akter Mim (DIU, 2023), Research Paper: "A CNN-Based Novel Approach for The Detection of Compound Bangla Handwritten Characters"
7. Mst. Sazia Tahosin (DIU, 2023), Research Paper: "Child and Maternal Mortality Risk Factor Analysis Using Machine Learning Approaches"
8. Choyon Chandra Banik (DIU, 2022), B.S.c Thesis: "Potato Leaf Disease Detection with CNN"
9. Flora Akhter (DIU, 2022), B.S.c Thesis: "Potato Leaf Disease Detection with CNN"
10. Alamin Sarker (DIU, 2021), B.Sc. Thesis: "Fake News Detection using Machine Learning Approach"

REFERENCES

Dr. Azizur Rahman, PhD

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