

NAZMUL HUDA BADHON

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🌐 [Portfolio](#) | 🔗 [LinkedIn](#) | 📄 [Google Scholar](#)

SUMMARY

Computer Science graduate specializing in Deep Learning, Medical Imaging, and Medical AI, with strong skills in Python, TensorFlow, data analysis, and algorithm design. Author of 8+ peer-reviewed publications in Q1 and Q2 journals (Elsevier, Wiley), with additional works under review, including novel ultrasound imaging datasets and lightweight CNN models. Experienced in mentoring 30+ students through research training and academic support. Committed to advancing robust, impactful AI for healthcare while contributing to the academic mission of a department through both research and teaching assistantships.

EDUCATION

Daffodil International University, BSc in Computer Science and Engineering	Spring 2022–Fall 2025
• CGPA: 3.88/4.00	Dhaka, Bangladesh
Dongseo University, Exchange Program, Computer Engineering	Fall 2023
• GPA: 3.94/4.50, Obtained Marks: 93.25% in total	Busan, South Korea

RESEARCH INTERESTS

Deep Learning, Machine Learning, Medical Imaging, Medical AI.

RESEARCH PUBLICATIONS

Journal Publication

1. Salehin, I., **Badhon, N. H.**, Sajib, M. T. A., Moon, N. N. (2025). Secure Medical AI: Federated Learning and Large Language Models for Medical Intelligence. *Fundamental Research* (Elsevier). **Submitted** [Q1].
2. Sajib, M. T. A., **Badhon, N. H.**, Salehin, I., Rifat, M. S. R., Ahmmed, F., Moon, N. N. (2025). A comparative deep learning methodology for plant insect image classification: assessment of CNN architectures and augmentation techniques. *MethodsX* (Elsevier). **Under Review** [Q2].
3. Salehin, I., **Badhon, N. H.**, Sajib, M. T. A., Moon, N. N. (2025). DeepUS-ReconSeg: A Multi-Angle Paired B-Mode Ultrasound Dataset for Medical Imaging Reconstruction and Segmentation. *Data in Brief* (Elsevier). **Accepted** (in press).
4. **Badhon, N. H.**, Salehin, I., Sajib, M. T. A., Rifat, M. H. S., Noman, S. M., Moon, N. N. (2025). TLCNN: Tabular data-based Lightweight Convolutional Neural Network for Electricity Energy Demand Prediction. *Global Energy Interconnection* (Elsevier). **Accepted** [Q1] (in press).
5. Salehin, I., Sajib, M. T. A., **Badhon, N. H.**, Rifat, M. H. S., Amin, N., Moon, N. N. (2025). Systematic Literature Review of LLM in Medical: Digital Health, Technology and Applications. *Engineering Reports* (Wiley). **Published** [Q2]. [\[Link\]](#)
6. Salehin, I., **Badhon, N. H.**, Sajib, M. T. A., Saifuzzaman, M., Moon, N. N. (2025). IQ-UltraRecon: Demodulated IQ Ultrasound Dataset of Human Hand and Arm Tissue for Deep Learning-Based Reconstruction. *Data in Brief* (Elsevier). **Published**. [\[Link\]](#)
7. Salehin, I., Khan, M. R., Habiba, U., **Badhon, N. H.**, Moon, N. N. (2024). BAU-Insectv2: An Agricultural Plant Insect Dataset for Deep Learning and Biomedical Image Analysis. *Data in Brief* (Elsevier). **Published**. [\[Link\]](#)

Book Chapter

8. **Badhon, N. H.**, Salehin, I., Sajib, M. T. A., Rifat, M. H. S., Moon, N. N. (2025). Predicting Peak Energy Demand Using Machine Learning Techniques for Efficient Electricity Supply Management. In *Engineering Applications of AI for Demand Forecasting* (Taylor & Francis). **Accepted** (in press).

TECHNICAL SKILLS

Programming Languages: Python, C, Java

ML Frameworks: TensorFlow, PyTorch, Keras, Scikit-learn, OpenCV

Data Analysis & Visualization: NumPy, Pandas, Matplotlib, Seaborn

Tools: GitHub, Google Colab, LaTeX

TEACHING & MENTORSHIP EXPERIENCE

- Conducted 10+ research training sessions for 30+ student participants at the Multidisciplinary Action Lab, Daffodil International University.

- Assisted in delivering undergraduate academic content in Data Science, Database, and Big Data under faculty supervision.

AWARDS & LEADERSHIP

ACADEMIC

- Awarded a fully funded [Global Korea Scholarship \(GKS\)](#) for Exchange Study at Dongseo University by the Government of the Republic of Korea Fall 2023 South Korea
- Received a [Special Scholarship](#) for academic results from Daffodil International University Spring 2022–Fall 2025

RESEARCH

- Received a [Research Award](#) from the Division of Research, Daffodil International University 2024
- Served as a [peer reviewer](#) for *Digital Health* (SAGE Publishing) and received an official reviewer certificate 2025

LEADERSHIP

- Led a team of [20+ students](#) in International Camping at Dongseo University, South Korea 2023
- Completed the [Volunteer Internship Program](#) under the International Affairs, Daffodil International University 2024

REFERENCES

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