

MD SHAHIDUL ISLAM SHABUZ

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RESEARCH INTERESTS

- **Computer Vision & Attention Mechanisms:** attention-enhanced CNNs, Vision Transformers, real-time visual recognition.
- **Medical Image Analysis:** tumor and lesion segmentation in MRI; CNN and CNN-Transformer hybrid architectures.
- **Sequence Modeling & Explainable AI:** Transformer, encoder-decoder and RNN/LSTM models; Grad-CAM interpretability for deployment under limited compute.

EDUCATION

Dhaka University of Engineering & Technology (DUET), Gazipur, Bangladesh

M.Sc. in Computer Science and Engineering

Dec 2025 – Present

- **CGPA: 4.00 / 4.00** (first semester completed).

B.Sc. in Computer Science and Engineering

Graduated Jul 2021

PUBLICATIONS

A. Al Mamun, **M. S. I. Shabuz**, M. N. Rahaman, K. I. Masud, and M. B. Hossain, "An Attention-Enhanced CNN with Explainable AI for Driver Behavior Detection in Intelligent Transportation Systems," *Algorithms* (MDPI), vol. 19, no. 8, art. 615, 2026.
DOI: [10.3390/a19080615](https://doi.org/10.3390/a19080615) | [\[Full text PDF\]](#)

RESEARCH PROJECTS

Brain Tumor MRI Image Segmentation Using Convolutional Neural Networks

2020 – 2021

B.Sc. Thesis, DUET, Gazipur, Bangladesh

- Developed a CNN-based deep learning model for automatic segmentation of brain tumor regions in MRI images.
- Implemented the full pipeline — image preprocessing, model training, and evaluation against reference annotations.

PROFESSIONAL EXPERIENCE

Assistant Professor, Department of Computer Science and Engineering

May 2024 – Present

Rajshahi Science and Technology University (RSTU), Natore, Bangladesh

- Teach undergraduate computer science courses and laboratory sessions in English; advise students on undergraduate thesis and project work.

Lecturer, Department of Computer Science and Engineering

Oct 2021 – Apr 2024

Rajshahi Science and Technology University (RSTU), Natore, Bangladesh

- Taught core undergraduate courses and developed course materials; promoted to Assistant Professor in 2024.

Python Development Intern, Brain Station 23, Dhaka, Bangladesh

Mar – Apr 2021

- Built a CLI-based task management system in Python using object-oriented design and Git version control.

TEACHING

Rajshahi Science and Technology University, Natore

Oct 2021 – Present

- **Courses taught:** Machine Learning, Artificial Intelligence, Digital Image Processing, Data Structures, Algorithms, Object-Oriented Programming, Database Management Systems, Operating Systems.
- Lectures and laboratory sessions delivered in English; course material developed for each course.

STUDENT SUPERVISION

BookCycleBD — An Online Second-Hand Book Marketplace

May 2026

B.Sc. final-year project, RSTU. Student: Md. Marzan Haque.

- Supervised a peer-to-peer marketplace for second-hand books, built with Next.js, React, TypeScript and Supabase PostgreSQL and deployed publicly.

SERVICE & OUTREACH

Founder and Moderator, The Daily English Newspapers Vocabulary

2020 – Present

- Public learning group of approximately 30,000 members, helping readers build English vocabulary from the daily newspapers for competitive examinations and English proficiency tests — facebook.com/groups/dailyenglishvocab

Moderator, RSTU Computer Club

Student societies, DUET: Senior Vice President, English Language Club; Finance Director, DUET Computer Society; Volunteer, DUET CSE Fest 2019.

TECHNICAL SKILLS

- **Programming Languages:** Python, C++, C, MATLAB
- **Deep Learning Frameworks:** PyTorch, TensorFlow, Keras
- **Architectures & Methods:** CNN, U-Net, ResNet, Swin Transformer, Transformers, Attention Modules, RNN, LSTM, Encoder-Decoder Models, Transfer Learning, Explainable AI (Grad-CAM)
- **Tools & Databases:** Git, GitHub, SQL

REFERENCES

Dr. Momotaz Begum, Professor and Head, Department of Computer Science and Engineering, DUET, Gazipur, Bangladesh
M.Sc. Supervisor | drmomotaz@duet.ac.bd

Dr. Mohammad Abul Kashem, Professor, Department of Computer Science and Engineering, DUET, Gazipur, Bangladesh
B.Sc. Thesis Supervisor | drkashemll@duet.ac.bd