

Md. Darun Nayeem

Dhaka Bangladesh | darunnayeem126181@gmail.com | 01521459434 | Youtube | LinkedIn | AI NextGen

Professional Summary

AI & Data Science Enthusiast with expertise in Deep Learning, specializing in CNN, GAN, RNN, and GNN. Research assistant at BUBT, founder of AI NextGen and mentor at AI Community BUBT, actively contributing to AI education and research since 2022. Publishing multiple research papers in top journals and creating AI-focused educational content on YouTube to empower aspiring data scientists.

Education

Daffodil International University , M.Sc. in Software Engineering (Major: Data Science)	Jan 2025 – Ongoing
• GPA: 3.67/4.0	
Bangladesh University of Business and Technology , B.Sc. in Computer Science and Engineering	Jan 2021 – Dec 2024
• GPA: 3.53/4.0	
HIGHER SECONDARY CERTIFICATE	2017 – 2019
• GPA: 5.0/5.0	
Secondary School Certificate	2015 – 2017
• GPA: 5.0/5.0	

Experience

Research Assistant at Bangladesh University of Business and Technology	Apr 2025 – Ongoing
• Focused on conducting and publishing high-impact research in machine learning and computer vision Experienced in developing and evaluating deep learning models for academic publication.	
Mentor at AI COMMUNITY BUBT	Sep 2024 – Ongoing
• Mentor at the AI Community, BUBT, where I conduct regular sessions on machine learning, deep learning, and research methodologies. Dedicated to guiding students in practical AI projects and academic growth.	
Managing Director at AI NextGen	Sep 2024 – Ongoing
• Managing Director at AI NextGen, leading a team in delivering client-focused AI solutions and real-world machine learning applications. Responsible for overseeing paid projects from development to deployment across various industries.	

Publications

- A Hybrid Architecture with Separable Convolutions and Attention for Lung and Colon Cancer Detection.**
Journal: Elsevier Array (Q1)
Authors: Md. Darun Nayeem (1st), Md. Emdadul Hasan Shishir, Munshi Touibur Rahman, Sudipto Chaki, Md. Saifur Rahman, A B M Shawkat Ali, Doctor of Philosophy (PhD)
Submission date: March, 2025
Status: In review
- Multi-Scale Attention Fusion with Depthwise Separable Convolutions for Efficient Skin Cancer Detection.**
Journal: Wei Li Journal (Q1)
Authors: Md. Darun Nayeem (1st), Md Anikur Rahman, Md. Shakil Hossain, Mejdil Safran, Sultan Alfarhood, M. F. Mridha
Submission date: February, 2025
Status: In review
- DGP-EF: Learning Airline Sentiments with Differentiable Graph Pruning and Expert Fusion.**
Journal: IEEE Access (Q1)

Authors: MD. SHAKIL HOSSAIN, MD ANIKUR RAHMAN, MD. DARUN NAYEEM, M. F. MRIDHA(Senior Member, IEEE), MEJDL SAFRAN, SULTAN ALFARHOOD
Submission date: May, 2025
Status: In review

Other Ongoing Research Works

- **MIFM:** A Multi-Scale Feature Fusion Model Integrating CNN and Linear Self-Attention for Enhanced Breast Cancer Diagnosis Across Multiple Magnifications.
- **CancerDet-Net:** A Hybrid Deep Learning Framework Combining CNN, Vision Transformers, and Hierarchical Gated Attention for Precise Histopathological Cancer Classification.
- **Exploring Multiclass Fruit Recognition:** A Deep Learning Approach with XAI Insights Including User Interface.
- **Lightweight Deep Learning-Driven Autism Detection with Comprehensive XAI Insight.**

Datasets

1. **A Dataset of 1,220 Asian Ornament Images for Classification and Identification.**
Journal: Data in Brief
Status: In review
2. **Comprehensive Dataset on Four Historic and Predominant Asian Vehicle Types for Image Recognition.**
Journal: Data in Brief
Status: In review

Technical Skills

- **Programming Languages:** Python, JavaScript, C, C++
- **Machine Learning & Deep Learning:** TensorFlow, PyTorch, Transformers, Scikit-learn
- **Data Science:** Feature Engineering, Data Preprocessing, Statistical Analysis
- **Web Development:** Flask, Flask-CORS, Streamlit, Tkinter
- **App Development:** Kivy, KivyMD

Experience & Leadership

Key Projects & Achievements

- Led multiple AI-focused course projects, earning A+ grades in both **SDP300** and **SDP400**.
- Secured **2nd place** in a brainstorming coding competition specializing in image processing.
- Achieved **2nd position** in a poster presentation, showcasing strong communication of complex ideas.

Educational Content & Public Engagement

Since 2021, I have been actively teaching on **YouTube**, focusing on Python programming, with special emphasis on app development and artificial intelligence. Through my content, I aim to make complex topics accessible to a wider audience.

References

- **Md. Saifur Rahman**
Assistant Professor & Chairman (Acting)
Department of Computer Science & Engineering
Phone: 01819-190259
Email: saifurs@gmail.com
- **Mr. Sudipto Chaki**
Assistant Professor
Department of Computer Science & Engineering
Phone: 01750-742782
Email: sudiptochakibd@gmail.com