

Md Imam Ahasan

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Research Interests

Medical Imaging and Computer Vision • Image Reconstruction and Enhancement • Generalizable Deep Learning • Computer-Aided Diagnosis • Trustworthy and Robust AI • Limited-Supervision Learning

Education

Chongqing University (CQU)

M.Sc. in Computer Science

GPA: 83.4 / 100

Chongqing, China

Sep 2023 - Expected Jun 2026

Daffodil International University (DIU)

B.Sc. in Computer Science and Engineering

GPA: 71.5 / 100

Dhaka, Bangladesh

Sep 2017 – Sep 2021

Publications

Peer-Reviewed Conference Papers

- A. F. M. Abdun Noor, **Md Imam Ahasan***, Mohammad Azam Khan, Guangchao Yang. *GeGLUNet: Structural Retinal Vessel Segmentation via Attention-Gated GeGLU and Contrastive Supervision* - Conference on Pattern Recognition and Computer Vision (PRCV 2025). DOI: [10.1007/978-981-95-5631-1_35](https://doi.org/10.1007/978-981-95-5631-1_35)

Journal Articles (Under Review)

- **Md Imam Ahasan**, Guangchao Yang, A. F. M. Abdun Noor, Mohammad Azam Khan*. *LightGAN-LD: A Lightweight Generative Adversarial Network for Efficient Low-Dose CT Reconstruction with Sinogram Encoding and Edge-Aware Learning* - PeerJ Computer Science.
- **Md Imam Ahasan**, Guangchao Yang, A. F. M. Abdun Noor, S. M. Hasan Mahmud*. *GenDiff: A Dose and Anatomy Aware Diffusion Model with Structural Prior Refinement for Low-Dose CT Reconstruction and Generalization* - Scientific Reports (Nature Portfolio).

Conference Papers (Under Review)

- **Md Imam Ahasan**, Guangchao Yang*, A. F. M. Abdun Noor, Mohammad Azam Khan. *Physics-Conditioned Bayesian Diffusion Model for Low-Dose CT Reconstruction* - International Conference on Pattern Recognition (ICPR 2026).
- **Md Imam Ahasan**, Guangchao Yang*, A. F. M. Abdun Noor, S. M. Hasan Mahmud. *Dose-Aware Cold Diffusion with Physics Consistency for Generalizable Low-Dose CT Reconstruction* - International Joint Conference on Neural Networks (IJCNN 2026).
- Anum Malik, A. F. M. Abdun Noor, **Md Imam Ahasan***, Mahnoor Buriro. *MoSSGate: Memory-Modulated State-Space Gating for Efficient Skin Lesion Segmentation* - International Joint Conference on Neural Networks (IJCNN 2026).
- Ahtisham Waheed, Yunfei Yin*, A. F. M. Abdun Noor, **Md Imam Ahasan**. *Direction-Curvature Aware Feature Integration for Robust Lane Detection* - International Joint Conference on Neural Networks (IJCNN 2026).
- Md Mahfuzur Rahman, Pengzhan Zhou, A. F. M. Abdun Noor, **Md Imam Ahasan***. *MTF-Net: Multi-Modal Temporal Feature Fusion Network for Pedestrian Intention Prediction* - International Joint Conference on Neural Networks (IJCNN 2026).

Manuscript in Preparation

- A. F. M. Abdun Noor, **Md Imam Ahasan**, S. M. Hasan Mahmud*. *A Joint Segmentation-Classification Framework for Mammography Using a Bi-Context Location-Aware U-Net* - Scientific Reports (Nature Portfolio).

Research Experience

Lab Assistant, Computer Vision Lab
Chongqing, China

Chongqing University
Sep 2024 – Present

- Developed diffusion based frameworks for LDCT reconstruction, integrating physics guided constraints and forward operator consistency into generative models, and conducted large-scale evaluation on clinical and public datasets using quantitative metrics to improve reconstruction robustness and structural fidelity.

Lab Assistant, Data Science Lab
Dhaka, Bangladesh

Daffodil International University
Jun 2020 – Jul 2021

- Implemented DL models for medical image classification and segmentation, building end-to-end experimental pipelines including preprocessing, training, hyperparameter tuning, and quantitative evaluation across multiple datasets.

Technical Skills

Languages	Python
Frameworks	PyTorch, MONAI, scikit-learn
Computer Vision	Classification, segmentation, generative models, inverse problems
Tools	Git, Linux, LaTeX, experiment tracking (W&B)

Teaching & Professional Experience

Senior IT Support Engineer
Dhaka, Bangladesh

Surma Garments Ltd.
Aug 2022 – Jun 2023

Lecturer, (ICT)
Dhaka, Bangladesh

Anupama International School and College
Dec 2021 – Jun 2022

Awards, Leadership & Community

3rd Prize , “China in My Eyes” Contest	Oct 2024
Finalist , Joy Bangla Youth Award	Aug 2021
Best Club Performance Award , Daffodil International University	Feb 2019
Co-Founder , Shopner Khoje Foundation (Charity Organization)	Feb 2017 – Present
Joint Secretary , DIU Voluntary Service Club	Jan 2021 – Jun 2021
Executive Member , DIU Computer and Programming Club	Apr 2018 – Nov 2018

Service & Volunteering

Volunteer
IEEE International Conference on Electrical Energy Conversion Systems and Control

Chongqing, China
May 2025

Volunteer
6th International Conference on Electronic Engineering and Informatics

Chongqing, China
Jun 2024

References

Dr. Guangchao Yang
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Chongqing University, Chongqing, China.
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Dr. Mohammad Azam Khan
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