Mohammad Sayem Chowdhury

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EDUCATION

American International University-Bangladesh(AIUB)   *Dhaka, Bangladesh*
MSc, Computer Science, **CGPA: 3.85 / 4.00**   *Jan 2023 to Dec 2023*

American International University-Bangladesh(AIUB)   *Dhaka, Bangladesh*
BSc, Computer Science & Enginnering, **CGPA: 3.77 / 4.00**   *May 2018 to April 2022*

SELECTED PUBLICATIONS

✔ Chowdhury, M. S., et al. (2024). **Leveraging Deep Neural Networks to Uncover Unprecedented Levels of Precision in the Diagnosis of Hair and Scalp Disorders**. *Skin Research and Technology*, Wiley. DOI: 10.1111/srt.13660 *(Master's thesis)*

✔ Chowdhury, M. S., et al. (2024). **Unveiling the Unique Dermatological Signatures of Human Pox Diseases through Deep Transfer Learning Model Based on DenseNet and Validation with Explainable AI**. In *Data-Driven Clinical Decision-Making Using Deep Learning in Imaging*, Springer. DOI: 10.1007/978-981-97-3966-0_7

✔ Jahan, N., Chowdhury, M. S., et al. (2024). **SafeguardNet: Enhancing Corporate Safety via Tailored Deep Transfer Learning for Threat Recognition**. *IEEE Access*. DOI: 10.1109/ACCESS.2024.10637407

✔ Sultan, T., Chowdhury, M. S., et al. (2025). **LeafDNet: Transforming Leaf Disease Diagnosis Through Deep Transfer Learning**. *Plant Direct*, Wiley. DOI: 10.1002/pld3.70047

Complete list: Google Scholar

Research in Progress & Under Review

❯ Chowdhury, M. S., et al. **EtyDerm: A Deep Learning Framework for Etiology-Based Multiclass Skin Disease Classification Using Integrated Datasets** *(Under Review)*.

❯ Chowdhury, M. S., et al. **FauxMasks: A Pseudo-Mask Framework for Skin Lesion Segmentation.** *(In Preparation)*.

❯ Chowdhury, M. S., et al. **Bridging CNNs and Transformers for Explainable Multimodal Skin Disease Diagnosis** *(In Preparation)*.

Research Interests

» Explainable Deep Learning and Interpretable AI in Medical and Safety-Critical Systems

» Generative AI and Multimodal Representation Learning (Vision, Language, and Structured Data)

» Cognitive Robotics and Human-Centered AI for Brain-Inspired Intelligence

ACADEMIC EXPERIENCE

Advanced Machine Intelligence Research Lab (AMIRL)   *Dhaka, Bangladesh*
Research Assistant   *Jan 2024 to Present*

- ▸ Designed and implemented machine learning models and end-to-end data pipelines for diverse research applications.

- ▸ Conducted data preprocessing, model training, evaluation, and result interpretation to ensure robustness.

- ▸ Collaborated with team members, mentored juniors, and maintained reproducible, version-controlled codebases.

American International University-Bangladesh(AIUB)   *Dhaka, Bangladesh*
Intern Student   *Jan 2022 to Apr 2022*

- ▸ Assisted in programming lab sessions, student debugging support, and grading scripts.

- ▸ Supported coordination and preparation of course materials for 100+ students.

HONORS AND SERVICE

- ★ **Magna Cum Laude** — Awarded for academic excellence in MSc Program.

- ★ **Website Coordinator**, IEEE CS BDC SPARK — Oversaw website design, content updates, and maintenance

- ★ **Webmaster**, IEEE AIUB Student Branch — Managed chapter's technical infrastructure and web operations

- ★ **Member**, IEEE & IEEE Computer Society (since 2019)

CERTIFICATIONS

- ★ Applied Data Science with Python – University of Michigan (Coursera)

- ★ Google and IBM Data Analytics Professional Certificate

Complete list: Coursera Profile

SKILLS

- › **Programming Languages:** Python, R, C++, Java, SQL

- › **Frameworks:** TensorFlow, PyTorch, Scikit-learn, OpenCV

- › **Tools:** Git, LaTeX, Tableau, Google Data Studio

- › **Web Development:** React, Django, Laravel, PHP, JavaScript

REFERENCES

Dr. Muhammad Firoz Mridha, Professor, Member [Research & Publication Steering Committee], Department of Computer Science, American International University-Bangladesh(AIUB); firoz.mridha@aiub.edu

Dr. Md. Asraf Ali, Professor, Department of Computer Science, American International University-Bangladesh(AIUB); asrafali@aiub.edu