MD. SHIFAUL HASAN

Sector 10, Uttara Model Town, Dhaka 1230, Bangladesh
+880 1710037283 shifaulhasantaship@gmail.com
ORCID Google Scholar GitHub LinkedIn
ResearchGate Portfolio

RESEARCH OBJECTIVE

CSE graduate with deep learning research experience in medical image classification and speech emotion recognition, and three co-authored publications, including one as first author. Seeking admission to a Master's programme in machine learning, artificial intelligence or data science to continue research in medical image analysis.

RESEARCH INTERESTS

Machine Learning · Deep Learning · Medical Image Classification · Speech Emotion Recognition · Data Science · Software Engineering · Web Development · Game Development

EDUCATION

IUBAT – International University of Business Agriculture and Technology *2022 – 2026*
Bachelor of Engineering in Computer Science and Engineering **CGPA: 3.52 / 4.00**
Bachelor's Thesis: *Hierarchical Attention Stacked Ensemble with Matthews-Correlation-Coefficient Weighted Averaging: A Novel Framework for Skin Lesion Classification*
Supervisor: Anwar Hossain Efat
Practicum Project: *Mini E-Commerce – Inventory Management & Smart Billing System*
Practicum Supervisor: Dr. Md. Alomgir Hossain

Armed Police Battalion Public School & College, Bogura *2020*
Higher Secondary Certificate (HSC) **GPA: 5.00 / 5.00**
Rajshahi Education Board

Daudpur High School, Dinajpur *2018*
Secondary School Certificate (SSC) **GPA: 5.00 / 5.00**
Dinajpur Education Board

PUBLICATIONS

[1] **Hasan, M. S.**, Efat, A. H., Bhuiyan, J. A., & Mansia, F. M. (2026). *Enhancing skin lesion classification using a Tri-Path Attention Stacked Ensemble architecture with Cohen's Kappa Proportioned Averaging.* **Digital Health**, 12. doi:10.1177/20552076261462026

[2] Bhuiyan, J. A., Efat, A. H., **Hasan, M. S.**, & Mansia, F. M. (2026). *Hierarchical attention stacked ensemble with Matthews-correlation-coefficient weighted averaging: A novel framework for skin lesion classification.* **Digital Health**, 12. doi:10.1177/20552076261433750

[3] Bhuiyan, J. A., Imran, F., Rony, I. A., Anni, F. A., & **Hasan, M. S.** (2026). *Emotion Recognition from Speech Using LSTM-Based Deep Learning Model.* Conference paper, **Springer**. doi:10.1007/978-3-032-15346-3_32

CONFERENCES & PRESENTATIONS

Paper Co-author *25–27 September 2025*
Emotion Recognition from Speech Using LSTM-Based Deep Learning Model
3rd International Conference on Big Data, IoT and Machine Learning (BIM 2025), Dhaka International University, Bangladesh.

- Co-authored research paper presented at the conference and published by Springer (Publication [3]).
- Paper ID: 453. Certificate of Participation/Presentation received.

EXPERIENCE

Web Development Intern, Bangla Soft Computer *1 October 2025 – 13 January 2026*

- Developed the inventory management and smart billing system using Laravel and MySQL (MVC architecture); details under Projects.
- Rated **excellent** in performance and conduct in the internship certificate, with good communication skills and the ability to work independently and in a team.

Private Tutor *2022 – 2024*
Private Tuition

- Taught students privately, explaining lessons clearly and supporting their learning with patience.

SELECTED ACADEMIC & TECHNICAL PROJECTS

Skin Lesion Classification – Bachelor's Thesis Research *Deep Learning, Computer Vision*
Developed transfer-learning ensemble frameworks for 7-class skin lesion classification on the HAM10000 dataset (10,015 dermoscopic images). Built hierarchical attention stacked ensembles on EfficientNet backbones with triplet attention (soft, channel, squeeze-excitation) and proposed MCC-weighted and Cohen's Kappa proportioned averaging for multi-layer ensemble fusion. Achieved **93.96%** (HASE) and **94.44%** (TASE) accuracy on HAM10000, with Grad-CAM interpretability. Published in *Digital Health* (Publications [1], [2]). As first author of Publication [1], contributed to methodology, software implementation, validation, formal analysis, investigation and the original manuscript draft.

Mini E-Commerce – Inventory Management & Smart Billing System *Bachelor's Practicum Project*
Developed a full-stack e-commerce platform integrated with an inventory management and smart billing system. Built on the Laravel MVC framework, the application implements role-based authentication using Laravel Breeze to separate user types. Admins manage product CRUD, track categories, and view smart billing data, while customers browse catalogs and place orders using Eloquent ORM transactions.

LMS *Library Management System*
Designed and built a full-stack, web-based database management system during the DBMS lab course. Structured a MySQL backend model with foreign key relations and queries. Main features include login and user profile updates, search filters for book availability tracking, and rental history tracking.

Expense Tracker – Task Management *Personal Productivity & Utility Web Applications*
Developed a Personal Expense Management System using PHP and MySQL with an MVC structure, featuring user authentication, full CRUD operations for daily expenditure tracking, and monthly reports, styled with CSS.

TECHNICAL SKILLS

Programming Languages: Python, C, C++, Java, PHP, JavaScript
Web & Frameworks: HTML5, CSS3, Responsive Web Design, Laravel, Django
ML & Data Libraries: TensorFlow, Keras, PyTorch, Pandas, NumPy
Databases & Concepts: MySQL, OOP, Data Structures & Algorithms, MVC, Database Design
Artificial Intelligence & Data: Machine Learning, Deep Learning, Supervised Learning, Classification, Ensemble Learning, Neural Networks, Computer Vision, Image Processing, Feature Extraction & Selection, Natural Language Processing, Speech and Audio Processing, Data Analysis
Development Tools: Git, GitHub, Visual Studio Code, Jupyter Notebook, Kaggle, Google Colab

TRAINING & CERTIFICATIONS

Python (Django) Course Completion *Jul 2025*
ICT Division, Government of Bangladesh (EDGE Project).

Machine Learning Course Completion Certificate *Apr 2025*
Simplilearn SkillUp. *Foundational training in Machine Learning algorithms and concepts.*

Python Coder (Badge Certificate) *Apr 2025*
Kaggle. *Badge for proficiency in core Python programming concepts.*

AI for Beginners *Mar 2025*
HP LIFE (HP Foundation). *Key AI concepts, the importance of data, and AI applications in business.*

Data Analysis with Excel *Mar 2025*
FutureNation (Grameenphone & UNDP initiative). *Data analysis, data manipulation and reporting using Excel.*

LANGUAGES

Bengali: Native
English: IELTS Academic – Overall Band 6.0 (Listening 7.0, Reading 5.5, Writing 6.0, Speaking 6.0)
Test date: 21 September 2026 | CEFR: B2

REFERENCES

Anwar Hossain Efat
Lecturer, Department of Computer Science and Engineering (CSE), IUBAT, Dhaka, Bangladesh
Email: anwarhossainefat@gmail.com

Dr. Md. Alomgir Hossain
Associate Professor, Department of Computer Science and Engineering (CSE), IUBAT
Email: alomgir.hossain@iubat.edu | Cell: +880 1718-735128