JASMIN JAHAN PUSPO

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EDUCATION

Master's in Computer Science and Engineering   Jan. 2023 – Oct. 2025
Shahjalal University of Science & Technology   *CGPA: N/A*

Bachelor's in Computer Science and Engineering   Jan. 2017 – Jun. 2021
North East University Bangladesh   *CGPA: 3.54 / 4.0*

RESEARCH INTERESTS

• Medical Imaging   • Computer Vision   • Machine Learning

PUBLICATIONS

Journal

- TransembleNet: Enhancing vector **mosquito species** classification through transfer learning-based ensemble model. *Plos One (Q1), 2025* 🔗

Conference (First Author)

- BengaliTaka: A Comparative Analysis of Transformer and CNNs on **Bangladeshi Currency** Recognition. *QPAIN 2025* 🔗

- SkinNet: An EnsembleNet Technique to Detect **Skin Cancer** Using Pre-Trained Models. *ECCE 2025* 🔗

- A Novel Approach to Classify **Breast Cancer** Using Transfer Learning. *ICCIT 2024* 🔗

MANUSCRIPTS UNDER REVIEW

(First Author)

Journal

- Bangla Taka Recognition Using Transformer Architectures and XAI: A **Novel Dataset** and State-of-the-Art Analysis. *IEEE Access (Q1), 2025*.

Conference

- Attention-Based CNN Architectures for Automated Binary Classification of Salmon **Fish Diseases**. *WIECON-ECE 2025*

- Explainable Convolutional Neural Networks for Multi-Crop **Leaf Disease** Detection: A Case Study on Three Crops. *IDAA 2025*

ACADEMIC THESIS

One Stage Detection, Segmentation, Shape, and Stage Classification in **Digital Mammography**. *Undergraduate Thesis, NEUB | 2021*

TECHNICAL SKILLS

Programming Language: Python
Deep Learning: CNNs, Transformers, Foundation Models
Framework : TensorFlow, Keras
Data Analysis: Pandas, Scikit-learn, OpenCV
Data Annotation : LabelImg, VGG Image Annotator
Tools: Git, JIRA

RESEARCH EXPERIENCE

Research Collaborator   Sep. 2025 - present
Elite Lab | Remote   *Dhaka, BD*
- Working on image-data analysis using **Transformer** architectures and **XAI** (explainable AI) techniques.
- Collaborating with lab team to develop innovative research methodologies, improving efficiency and accuracy.

AI Researcher   Jan. 2025 - Jun. 2025
SafeNet.AI | Remote   *Dhaka, BD*
- Implemented attention-based CNN models for classifying **fish diseases** into healthy and infected classes, focusing on XAI techniques to explain model predictions.

Volunteer Research Intern | *Remote*   Sep. 2023 – Feb. 2024
- Analyzed experimental results and authored the literature review for a study on **mosquito diseases**.
- Summarized from recent research papers and wrote a literature review catalog template

PROFESSIONAL EXPERIENCE

ML Engineer   Feb. 2025 - Apr. 2025
NxtVis | Remote   *Dhaka, BD*
- Developed and optimized deep learning models for real-time **video anomaly** detection, improved dataset quality.

Content Writer   Oct. 2022 - May 2023
Russkin Bright | Hybrid   *Sylhet, BD*
- Researched and created engaging **curriculum, book chapters**, and MCQ for various courses.
- Wrote sales content of 300-450 words by maintaining 100% quality and zero plagiarism.

TEACHING EXPERIENCE

ICT Lecturer | $(9^{th} - 12^{th})$ **grade**   Feb. 2024
Women's Model College   *Sylhet, BD*
- Was responsible for daily 40-minute multimedia classes and delivered up to **four lectures** per day.
- Conducted classes covering technological topics, including theoretical coursework, and programming languages.

ICT Teacher | $(3^{rd} - 8^{th})$ **grade**   Sep. 2022 - Dec. 2022
Sylhet International School and College   *Sylhet, BD*
- Prepared lesson plans including laboratory class, lecture, exam, and homework.
- Graded assignments, tests, and lab work, providing feedback to help students improve academically.

Peer Tutor | $(3^{rd} - 12^{th})$ *grade*   May 2013 – Jun. 2024
- Designed lesson plans and materials to simplify concepts, enhancing student understanding and engagement.
- Assisted students with college admissions, supporting them in securing placements at reputable colleges.

DATASET COLLECTIONS

• Bengali Paper Currency 🔗   • Bengali Sign Language 🔗

STANDARDIZED TEST RESULTS

• IELTS Academic: Overall **6.0** (L: 6.0 | R: 6.5 | W: 5.5 | S: 6.0)

ACADEMIC SERVICE

• Conference Reviewer: **ICCIT 2025**