## Jasmin Jahan Puspo

**■** jasminjahanpuspo@gmail.com | | **♦** Academic Portfolio | **♦** Sylhet, Bangladesh

#### **EDUCATION**

#### Master's in Computer Science and Engineering

Shahjalal University of Science & Technology

Jan. 2023 – present

CGPA: N/A (in progress)

#### Bachelor's in Computer Science and Engineering

North East University Bangladesh

Jan. 2017 – Jun. 2021 *CGPA: 3.54/4.0* 

#### RESEARCH INTERESTS

• Medical Imaging

• Computer Vision

• Machine Learning

#### **PUBLICATIONS**

#### In Review

EnsembleNet: Enhancing vector mosquito species classification through transfer learning-based ensemble model. Q1 Journal 2024 §

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

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

A Transformer Approach for Brain Tumor classification in MRI images. ICCV 2025

#### ACADEMIC THESIS

An Average K-fold EnsembleNet Approach for Binary Classification in Digital Mammography. *Master's Thesis*, SUST | 2024

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

#### TECHNICAL SKILLS

Programming Languages: Python, C, Java

Frameworks and Libraries: TensorFlow, Keras, PyTorch Data Analysis Tools: Numpy, Pandas, Scikit-learn, OpenCV

### RESEARCH EXPERIENCE

#### Volunteer Research Intern | Remote

Sep. 2023 – Feb. 2024

- Collaborated with team members to develop innovative research methodologies, improving efficiency and accuracy
- Summarized from recent research papers and wrote a literature review catalog template

#### TEACHING EXPERIENCE

## Trainee ICT Lecturer | $(9^{th} - 12^{th})$ grade

Feb. 2024

Women's Model College

Sylhet, BD

- Responsible for taking 40 minutes of multimedia class each day up to 4 lectures
- Taught learning, reading, writing, and timing strategies to enhance students' marks

## ICT Teacher $|(3^{rd} - 8^{th})$ grade

Sep. 2022 - Dec. 2022

Sylhet, BD

Sylhet International School and College

• Prepared lesson plans including laboratory class, lecture, exam, and homework.

• Graded papers, made questions, and took class tests.

#### Work Experience

#### Content Writer | Hybrid

Oct. 2022 - May 2023

Russkin Bright

Sylhet, BD

- Researched and created engaging curriculum, modules, and MCQ for various courses.
- Wrote sales content of 300-450 words by maintaining 100% quality and zero plagiarism.

#### DATASET COLLECTIONS

Bengali Taka

• Bengali Sign Language

• Nagri Alphabet

• Annotated Oral X-ray

#### Personal Projects

# Fully Automatic Computer-aided Mass Detection and Segmentation via Pseudo-Color Mammograms and Mask R-CNN

Reduced image size using MatLab; Data size: 8.38 GB; Mask R CNN algorithm experimented on Gray and PCM images and predicted 67% and 87% accuracy.

#### Object Detection & Segmentation

- Gathered and annotated data (15 images) from the internet
- $\bullet$  Detected and segmented aimed objects via the Mask R CNN algorithm, leading to 95% success.

#### ACADEMIC PROJECTS

#### **Breast Cancer Classification**

 $\bullet$  Utilized an ideal CNN model to classify the binary cancer stage with 95% accuracy on the MIAS dataset.

#### Bangla Money Recognition-Kaggle

- Classified Bangla Nine notes with KNN, Linear Regression, and CNN algorithms from scratch and compared them
  with Scikit Learn libraries to obtain similar accuracy.
  - \* Key achievement: Github Arctic Code Vault Contributor 2020

#### Titanic Survival Prediction-Kaggle

• Trained RF and KNN algorithms to predict whether passengers would survive and received a 71% score.

#### Object Info

• Collected short descriptions and a single image of 25 objects from the internet as input; identified and briefly described an object with pronunciation as output.

#### Line Follower Robot

- The four-wheeled robot passed in a particular direction, i.e., lines (90, 180 degrees) and angles (V, U shapes)
  - \* Key accomplishment: Placed second in the NEUB ICT Fest 2018.

#### LEADERSHIP EXPERIENCE

Private Tutor May 2013 - Jun. 2024

• Tutored for school and college students to achieve better grades