JASMIN JAHAN PUSPO

✉ jasminjahanpuspo@gmail.com | ⌂ Academic Portfolio | ⬤ Sylhet, Bangladesh

EDUCATION

Master's in Computer Science and Engineering   Jan. 2023 – present
Shahjalal University of Science & Technology   *CGPA: N/A (in progress)*

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

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

DATASET COLLECTIONS

- Bengali Taka   - Bengali Sign Language   - Nagri Alphabet   - Annotated Oral X-ray

RESEARCH EXPERIENCE

Volunteer Research Intern | *Remote*   Sep. 2023 – Feb. 2024
- Collaborated with lab team 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 conducting daily 40-minute multimedia classes, delivering up to four lectures each 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 constructive 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.

Undergraduate Student Assistant   Jan. 2018 - Dec. 2020

North East University Bangladesh   *Sylhet, BD*

- Provide guidance on a technical framework, programming concepts, and lab projects.
- Mentored 2 sections of 15 students through coursework: core concepts, coding practices, and methodologies.

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.

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
- Detected and segmented aimed objects via the Mask R CNN algorithm, leading to 95% success.

ACADEMIC PROJECTS

Breast Cancer Classification

- 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.