

JASMIN JAHAN PUSPO

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EDUCATION

M.Sc (Thesis)	Shahjalal University of Science & Technology Major: Computer Science & Engineering	March 2023 - Present
B.Sc (Engg.)	North East University Bangladesh Major: Computer Science & Engineering CGPA: 3.54/4.00	January 2017 - June 2021

RESEARCH INTEREST

- Medical Imaging
- Computer Vision
- Machine Learning

RESEARCH EXPERIENCE

Volunteer Research Intern Remote	Dhaka, BD
Mentor: Abdullah Al Maruf	September 2023 - February 2024
<ul style="list-style-type: none">• Skilfully analyzed datasets, boosted data accuracy by 50%, and reduced run time.• 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.	
Undergraduate Thesis NEUB	Sylhet, BD
Supervisor: Muhammad Mahir Hasan Chowdhury	July 2020 - June 2021
<ul style="list-style-type: none">• Segmented gray images (MIAS Dataset) via the Mask R CNN algorithm• Classified shapes using CNN to obtain their stages	

PREPRINT

Al Maruf, A., Haque, M. M., Romy, R. A., **Puspo, J. J.**, & Aung, Z. **EnsembleNet: Enhancing vector mosquito species classification through transfer learning-based ensemble model.**

TECHNICAL SKILLS

Programming Languages: Proficient in C, Java, Python
Deep Learning Frameworks: TensorFlow, Keras
Data Analysis Tools: Numpy, Pandas, Scikit-learn, OpenCV

TEACHING EXPERIENCE

Women's Model College	Sylhet, BD
Trainee ICT Lecturer(9 th - 12 th grade)	February 2024
Responsibilities:	
<ul style="list-style-type: none">• Took classes of diverse sections e.g. Science, Arts, and Commerce.• 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.	
Sylhet International School and College	Sylhet, BD
ICT Teacher(3 rd - 8 th grade)	September 2022 - December 2022

Responsibilities:

- Prepared lesson plans including laboratory class, lecture, exam, and homework.
- Graded papers, made questions, and took class tests.
- Reported students' performance weekly to the school board.

WORK EXPERIENCE

Russkin Bright

Content Writer | Hybrid

Sylhet, BD

October 2022 - May 2023

Responsibilities:

- 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.
- Wrote 3-4 modules each day of targeted content, rewrote based on editor feedback.

PERSONAL PROJECTS

Fully Automatic Computer-aided Mass Detection and Segmentation via Pseudo-Color

Mammograms and Mask R-CNN:

- Conceptualized and implemented this research paper.
- 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; Created charts in Google Colab to perform preliminary analysis and visualize data using Matplotlib.
- 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 Random Forest and KNN algorithms to predict whether passengers would survive and received a 71% score.

Tic Tac Toe:

- Designed a 5*5 GUI interface in Python using the Tkinter module that decides whether a player wins, loses, or ties with the computer.

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.

Desktop Application:

- Could search for specific files from the local hard disks written in Java.

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.

Vision-based Vacuum Cleaner:

- Avoided the frontier obstacles automatically while vacuuming the floor.

Study Management System:

- Designed and established a user-friendly website with PHP, HTML5, CSS3, and MySQL where students could store their study materials.

Medicare:

- Established an interactive website that uses PHP, HTML5, CSS3, and MySQL to provide health-related information.

COURSES ON DATACAMP

Biomedical Image Analysis in Python by Stephen Bailey

[certificate](#)

Image processing in Python by Rebeca Gonzalez

[certificate](#)

LEADERSHIP EXPERIENCE

Private Tutor

Sylhet, BD

- Tutored for school and college students to achieve better grades
- May 2013 - June 2024

LANGUAGES

- **Bangla:** Native Language;
- **English:** Fluent Language

Last Update: February 15th, 2024