

JASMIN JAHAN PUSPO

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EDUCATION

M.Sc (Engg.)	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.**

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(3rd - 8th grade)	September 2022 - December 2022
Responsibilities:	
<ul style="list-style-type: none">• 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 Job)

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.

TECHNICAL SKILLS

Programming Languages: Proficient in C, Java, Python

Data Analysis Tools: Scikit-learn, OpenCV, Numpy

Deep Learning Frameworks: TensorFlow, Keras

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