JASMIN JAHAN PUSPO

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EDUCATION

B.Sc (Engg.) North East University Bangladesh — January 2017-June 2021
Major: Computer Science & Engineering
CGPA: 3.54/4.00

RESEARCH INTEREST

- Medical Imaging
- Computer Vision
- Machine Learning

RESEARCH EXPERIENCE

Undergraduate Thesis | NEUB — Sylhet, BD
Supervisor: Muhammad Mahir Hasan Chowdhury — July 2020-June2021

- Segmented gray images via the Mask R CNN algorithm and classified shapes using CNN to obtain their stage.
- Defended thesis in front of board members.

TEACHING EXPERIENCE

Sylhet International School and College, Sylhet, BD.
ICT Teacher(3rd - 8th grade) — September 2022-Present
Responsibilities

- Prepare lesson plans, and grade papers, make questions, and take class tests.
- Report students' performance weekly to the school board

WORK EXPERIENCE

Russkin Bright
Sales Content Writer (Part-time/Remote Job) — October 2022-Present
Responsibilities

- Researched and created interesting content for a variety of social media platforms.
- Wrote 34+ 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:

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

ACADEMIC PROJECTS

Breast Cancer Classification:

- Utilize 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, KNN algorithms to make predictions such that passengers would survive or not and receive 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:

- Find specific files from local desktop disks written in Java.

Line Follower Robot:

- The four-wheeled robot successfully passed 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:

- Avoid the frontier obstacles automatically while vacuuming the floor.

Study Management System:

- Design and establish a user-friendly website with PHP, HTML5, CSS3, and MySQL where students can store their study materials.

Medicare:

- Establish an interactive website that provides health-related information using PHP, HTML5, CSS3, and MySQL.

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

Languages

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