# Israt Jahan Payel


01624797629

payelcse123@gmail.com

IsratJahanPayel

IsratJahanPayel

IsratJahanPayel

105/1 Vhagolpur Savar, Dhaka.


## Career Objective

Intend to work in a challenging and creative environment where strong sense of responsibility and commitment is required. If your organization decides that I am qualified for this opportunity, I would like to provide my expertise, efficiency, and originality in the field of Machine Learning, Deep Learning, and Data Science. I am eager to contribute my skills in analyzing and interpreting complex datasets, generating actionable insights, and supporting data-driven decision-making processes, in addition to advancing my own career in this dynamic and evolving field.

## Scholastic Records

**Master's Degree**

**Institute Name** : Daffodil International University (DIU), Dhaka, Bangladesh
**Subject** : Computer Science & Engineering

**CGPA** : 4.00 (Up to 2nd semester)

**Passing Year** : 2024-2025

**Bachelor's Degree**

**Institute Name** : Daffodil International University (DIU), Dhaka, Bangladesh
**Subject** : Computer Science & Engineering

**CGPA** : 3.87 (Out of 4)

**Passing Year** : 2020-2023

**Higher Secondary Certificate (HSC)**

**Institute Name** **:** Savar Model Collage, Dhaka, Bangladesh
**Subject** **:** Science

**CGPA** **:** 4.42 (Out of 5)

**Passing Year** **:** 2018-2019

**Secondary School Certificate (SSC)**

**Institute Name** **:** ACED School, Dhaka, Bangladesh
**Subject** **:** Science

**CGPA** **:** 5.00 (Out of 5)

**Passing Year** **:** 2016-2017

## Skills

- ❖ Clustering Algorithms
- ❖ Decision trees
- ❖ Ensemble Methods
- ❖ Independent Component Analysis
- ❖ Logistic Regression
- ❖ Image Classification
- ❖ Image Segmentation
- ❖ Image Processing
- ❖ Signal Processing
- ❖ Feature Extraction, Feature Selection, Predictive Modeling
- ❖ **Large Language Models (LLMs):** Fine-tuning and prompt engineering for LLMs; NLP tasks: Text generation, summarization, sentiment analysis
- ❖ Tools: **VSCode**, **Jupyter**, **Colab, Spyder**
- ❖ Packages: **Numpy**, **Pandas**, **Scikit-learn**, **XGBoost**, **Matplotlib**, **Seaborn**, **TensorFlow**, **Karas, Scikit-Learn** etc.
- ❖ Programming Language: **Python**, **JAVA**, **C**, **C++**, **HTML**, **CSS**, **R**
- ❖ Deep learning Classification: **CNN**, **Vision Transformer**, **Swin**, **GNN, YOLO, Transformer model** etc
- ❖ Database: **MySQL**
- ❖ **SQL** (for querying and data manipulation)
- ❖ **Spark / Hadoop** (for processing large datasets)
- ❖ **Kafka, Flink, or Kinesis** (for streaming data)
- ❖ Data Visualization: **Power BI**

- ❖ Source and Version Control: **GitHub**

## Sample Works

- ❖ Developed, simulated and improved algorithm for predicting cardiovascular disease.
- ❖ Use machine learning techniques to develop and evaluate world university ranking Student online Education Adaptability Prediction
- ❖ Optical coherence tomography image segmentation and classification through model analysis.
- ❖ Lung and colon cancer histopathology image segmentation.
- ❖ Breast Ultrasound based image feature extraction and classification using GNN model.
- ❖ Malaria cell histopathology image segmentation and classification.
- ❖ Oral cancer image augmentation and classification.
- ❖ 3D MRI brain tumor image classification using model analysis
- ❖ Some basic project of black box concept on CNN model, using point cloud converting it into mesh file, ground glass opacity on covid detection etc.
- ❖ Volumetric Rendering on 3D MRI brain tumor.
- ❖ ECG signal processing-based work
- ❖ The Integration of Federated Learning with XAI

## Publication

**"Graph Neural Network-based Breast Cancer Diagnosis using Ultrasound Images with Optimized Graph Construction Integrating the Medically Significant Features"** in Journal of Cancer Research and Clinical Oncology with an impact factor 3.5 and H-index of 103.

**"A Low Complexity Efficient Deep Learning Model for Automated Retinal Disease Diagnosis"** in Journal of Healthcare Informatics Research with an impact factor 5.4 and H-index of 17.

**"DVS: Blood cancer detection using novel CNN-based ensemble approach"** in Arxiv.

**"A Novel Approach to select an optimal text compression method based on application"** in 2024 6$^{th}$ International Conference on Sustainable Technologies for Industry 5.0.

**"Grape Guard: A YOLO-based mobile application for detecting grape leaf diseases"** Journal of Electronic Science and Technology with H-index of 17.

**"Clinical Laboratory Data-Based Bladder Cancer Prediction Using Machine Learning Approach"** in 2025 4th International Conference on Electrical, Computer and Communication Engineering (ECCE 2025)

**"Early Detection of Autism Spectrum Disorder in Toddlers: A Fast and Efficient Machine Learning Approach"** in 2025 4th International Conference on Electrical, Computer and Communication Engineering (ECCE 2025)

In submission

- Efficient Framework For 3d Mri Brain Tumor Detection and Classification.
- Detecting and classifying Lung and Colon Cancer using optimized Vision Transformers.
- Deciphering The Symptom Spectrum: A Comprehensive Analysis of Migraine Patterns and Types
- Bloodsnap: A Clinically Applicable Deep Learning-Based Mobile App for Acute Lymphoblastic Leukemia Detection
- A Study on Deep Convolutional Neural Networks, Transfer Learning, and N-Net for Lung and Colon Cancer Detection
- Multi-Modality Medical Image Classification: X-ray, MRI, and CT for Disease Detection

## Experience

Research Associate at Health Information Research Lab (HIRL) at Daffodil International University Starting 2022 to Present.

Research Associate at 4IR Research Cell at Daffodil International University Starting 2024 to 2025.

Data Analyst at Adiva Graphics starting Feb 2025 to Present.

## References

**Dr. Md. Taimur Ahad**
Associate Professor and Associate Head
Department of Computer Science and Engineering at
Daffodil International University
Cell: +8801701330009
Email: taimurahad.cse@diu.edu.bd

**Dr. Md Zahid Hasan**
Associate Professor & Program Director MIS
Department of Computer Science and Engineering at
Daffodil International University
Cell: +8801672580748
Email: zahid.cse@diu.edu.bd