

GOURAB ROY

Sylhet Engineering College, Sylhet, Bangladesh

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ABOUT ME

I'm a Machine Learning Researcher and Adjunct Lecturer with a focus on machine learning, deep learning, and computer vision. I've earned gold badges in problem-solving with C++ and Python on HackerRank. I've also published a research paper in biomedical imaging, showing my dedication to making a real impact in my field. As an Adjunct Lecturer, I'm passionate about creating an engaging learning environment by combining my research insights with effective teaching methods. I'm on the lookout for a M.Sc. or PhD position in a challenging academic environment where I can work on solving problems that have a global impact.

RESEARCH AREA

Artificial Intelligence, Machine Learning, Deep Learning, Medical Image Analysis, NLP, Computer Vision

EDUCATION

- | | |
|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| • Sylhet Engineering College, Sylhet, Bangladesh
<i>B.Sc.(Engg.) in Computer Science and Engineering</i> | <i>February, 2018 - January, 2023</i>
CGPA: 3.56 /4.00 |
| • Khulna Public College, Khulna, Bangladesh
<i>Higher Secondary Certificate</i> | <i>GPA: 4.67/5.00</i>
2016 - 2017 |
| • St. Paul's High School, Mongla, Bagerhat
<i>Secondary School Certificate</i> | <i>GPA: 5.00/5.00</i>
2014 - 2015 |

PUBLICATIONS

•Live

- Ornob, T.R., **Roy, G.** & Hassan, E. (2022). “CovidExpert: A Triplet Siamese Neural Network framework for the detection of COVID-19”. Informatics in Medicine Unlocked, 101156, (Jan 13, 2023). DOI: 10.1016/j.imu.2022.101156 ([Link](#))

•Undergrad Thesis

- CerebralNet: A deep learning model to detect major abnormalities from brain CT and MRI scan via segmentation and classification techniques.

•Working on & Under Review

- CrackClassification4: Classifying Four Types of Cracks in Structural Surfaces Using CNNs (*Under Review*)
- Enhancing Concrete Performance: Machine Learning Models for Predicting and Classifying Mechanical Properties (*Under Review*)
- Optical character recognition for ancient scripts: A case study on Syloti Nagri using deep learning models" (*Under Review*)
- Optimizing Multilingual Summarization: Advanced Corpus Creation and Filtering Approach (*Under Review*)
- BanglaFont45: A Benchmark Dataset for Transfer Learning in Bangla Font Classification. (*Ongoing*)

EXPERIENCE

•Adjunct Lecturer

January 2024 – Present

Sylhet Engineering College

Sylhet, Bangladesh

- Responsible for taking undergraduate classes, marking assessments, consulting students, conducting research, and supervising final year thesis students.
- Courses instructed:
 - * **CSE 705:** Peripheral and Interfacing
 - * **CSE 706:** Peripheral and Interfacing (Sessional)
 - * **CSE 505:** Microprocessor & MicroController
 - * **CSE 506:** Microprocessor & MicroController (Sessional)

PROJECTS

•Data Analysis Projects

[Source Code](#)

Python, Numpy, Matplotlib, Pandas, Jupyter Notebook

- Developed expertise in exploratory data analysis and visualization by completing diverse projects, including analysis of **Boston housing data**, **Covid-19 global health outcomes**, and **Google Play app ratings data**.
- Created a Git repository featuring **8 exploratory data analysis projects**, demonstrating skills in data visualization and analysis.

•Python Projects

[Source Code](#)

Python, PyCharm, Jupyter Notebook

- Developed multiple Python projects, including **Calculator**, **Dice rolling simulator**, **Tic Tac Toe game**, **Caterpillar game**, **Egg Catcher game**, and **Hangman game**.

•Java Application

University Project

Java, NetBeans IDE, MySQL, JFrame

[Source Code](#)

- Designed and developed a **Billing System application** using **Java and MySQL** for university coursework, showcasing skills in programming, database design, and software development.

•Web-Based Project

[Source Code](#)

HTML, CSS, JavaScript

- Designed and developed a simple website called **Pioneer Bank** using HTML, CSS, and JavaScript.
- Published the project on **GitHub** for public access.

TECHNICAL SKILLS

Languages: C, C++, Python, Java, JavaScript

Machine Learning Libraries: PyTorch, TensorFlow, Scikit-learn

Databases: MySQL, SQLite

Developer Tools: Visual Studio Code, PyCharm, NetBeans IDE

Other Skills: Git, Windows, Linux, LaTeX

IELTS SCORE

Overall Band: 6.5, Listening: 7, Reading: 6.5, Writing: 6, Speaking: 6.0

CERTIFICATIONS & ACHIEVEMENTS

Problem Solving: Solved 350+ problems on platforms such as [HackerRank](#), [Codeforces](#), [UVA](#)

Achievements: Earned Gold Badges in C++ and Python problem solving on HackerRank

Machine Learning Specialization: Completed Machine Learning Specialization course on Coursera ([Link](#))

Data Structures Course: Completed Data Structures course on Coursera ([Link](#))

Data Visualization Masterclass: Completed Data Visualization in Python Masterclass on Udemy ([Link](#))

Review Contribution: Contributed as a reviewer for Informatics in Medicine Unlocked ([Link](#))

REFERENCES

Enamul Hassan

Designation: Assistant Professor,
Department of Computer Science
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Teaching Assistant: Stony Brook
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Stony Brook, New York, US.

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