Prosenjit Mondol (Prosen)

prosenjit1156@gmail.com +880 1315747034

Github Profile: Prosenjit-Mondol LinkedIn Profile: prosenjit-mondol Portfolio: pronad1.github.io

EDUCATION

Patuakhali Science & Technology University (PSTU) **February 2023 – Present**
B.Sc. in Computer Science and Engineering (Dean's List) Cumulative GPA: 3.65/4.00 (Credits Completed 126.5 out of 165)

WORK EXPERIENCE

Research Software Engineer & Lab Systems Coordinator **August 2025 – Present**
Computation Informatics & Machine Intelligence Lab **(CIMILab)** University of Missouri, USA

RESEARCH INTERESTS

AI in Health, Health Informatics, Human-Computer Interaction, Machine Learning, Image Processing, Computer Vision

PUBLICATIONS

Sharafat Karim, Md. Senarul Islam, Prosnejit Mondol, Md. Tanvir Islam, and Golam Md. Muradul Bashir. A deep learning approach to bangla license plate text extraction using easy ocr. In 2026 International Conference on Power, Electronics, Communications, Computing, and Intelligent Infrastructure (PECCII), pages 1–6, 2026. ***(Paper)***

Presented: Mondol, Prosenjit AND Dey, Samrat Kumar AND Howlader, Arpita. A Sensitivity-Gated Cascade for Compute-Efficient Spinal Lesion Detection in Resource-Constrained Settings. Medical Image Computing and Computer Assisted Intervention – MICCAI 2026 Workshops and Challenges 2026, Springer Nature, LNCS 17264. ***(Paper)***

In Progress: "DSANet: A Grid-Search Optimized Heterogeneous Ensemble for Ischemic Stroke Lesion Segmentation" Submitted at 14th International Conference on Electrical and Computer Engineering, BUET, Dhaka, Bangladesh. ***First Author(2026)***

SELECTED AWARDS & HONOURS

PSTU Dean's Merit Award: Awarded scholarships for academic excellence among 84 students.

Aungkur Scholarship: Provided by Patuakhali Science & Technology University.

PSTU Programming Contest: Ranked in the top 5 out of 50 teams in 2025.

Merit Scholarships: Government Board Merit scholarships for outstanding results in both Higher Secondary Certificate (2021) & Secondary School Certificate (2019).

TECHNICAL STRENGTHS

Programming Languages	R, Python, C++, Java, JavaScript, HTML/CSS, PHP, C#, C, dart
ML Framework / Library	Scikit-learn, PyTorch, Pandas, Numpy, Keras, TensorFlow, OpenCV
Data Visualization/Others	Matlotlib, Seaborn, Plotly
Database	MySQL, Oracle, SQL Server
Backend	Laravel, Flutter, Dotnet
Miscellaneous Tools	Git, Latex, Jupyter Notebook, VS Code, Android Studio

COMPETITIVE PROGRAMMING

CodeForces **[Pupil, max rating 1200+]** **HackerRank** **LeetCode** **Beecrowd**

- Solved 1500+ problems across multiple competitive programming platforms, developing expertise in algorithms, data structures, and problem-solving techniques.
- Actively competed in prominent programming contests, including the ICPC Dhaka Regional Preliminary (2023–2025), BitFest KUET (2024), and the PSTU IT Carnival.

PROJECTS

NeuroVision AI

Git RepositoryOR **View Live**

NeuroVision AI is a cutting-edge medical imaging platform designed to assist doctors, radiologists, and researchers in diagnosing neurological and cardiovascular conditions through advanced deep learning models. The platform integrates multiple AI pipelines for brain, spine, heart, and chest imaging, providing lesion detection, segmentation, explainable AI (Grad-CAM), and research monitoring in a secure, enterprise-grade environment.

TrashBot

Git RepositoryOR **View Live**

Developed TrashBot, an AI-powered smart waste management system using Raspberry Pi 3 Model B, computer vision, and IoT technologies. The project integrated YOLO-based real-time waste detection, deep learning-based classification, live web monitoring, and remote tracking features to support intelligent waste collection and segregation for smart city applications.

Graph-Visualizations

Git Repository OR View Live

Graph Craft is a web-based tool for visualizing and analyzing graphs. Provides an interactive environment where users can input their graph data in the form of an adjacency matrix and instantly visualize the graph along with various analysis results.

Smart Vacuum Cleaner

Git Repository OR View Live

The application is used to initiate the robot. The navigation of the robot is according to the help of sensors it detects and avoids obstacles. To save the time of the people the smart vacuum cleaner helps to clean the surface of the floor without any human intervention.

Relevant Coursework of Undergraduate Program

Computer Science: Programming Language, Data Structure and Algorithms, Software Engineering, Database Systems, Numerical Methods, Discrete Mathematics, Artificial Intelligence, VLSI, Algorithm Engineering, Compiler Design and Automata Theory, Data Warehousing and Mining

Signal Communication: Data Communication Engineering, Optical Fiber Communication, Computer Networks, Network Routing and Switching and related lab courses.

Mathematics: Differential and Integral Calculus, Co-ordinate Geometry and Linear Algebra, Statistics, Vector Analysis and Complex Variables, Ordinary and Partial Differential Equations.

Electrical & Electronics: Basic Electrical Engineering, Electrical Technology, Digital Logic Design, Microprocessor and Interfacing and related lab courses.