

Tohin Majumder

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Bachelor of Technology

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GitHub Profile

LinkedIn Profile

LeetCode Profile

EDUCATION

•Bachelor of Technology in Computer Science and Engineering(AI and ML)

2022-26

Sharda University, Greater Noida

PERSONAL PROJECTS

•Dashboard

A web-based dashboard for managing products, employees, customers, and orders.

- Built interactive dashboard with data visualization (charts/graphs) to track 500+ product orders monthly.
- Engineered a comprehensive search and sorting system alongside automated report generation features, leading to a decrease in data handling errors by 25% and fostering better decision-making through accurate reporting.
- Technology Used: PHP, HTML, CSS, JavaScript, Bootstrap.

•Disease Detection in Crops

A machine learning model for detecting crop diseases and suggesting pesticides.

- Achieved 92% accuracy using CNN with TensorFlow on dataset of 10,000+ crop images
- Reduced false positives by 18% through OpenCV image preprocessing
- Integrated pesticide recommendation system using decision trees

•Handwritten Letter Recognition System

A deep learning model that recognizes handwritten letters.

- Developed neural network model achieving 95% accuracy on synthetic dataset using TensorFlow/Keras.
- Engineered data augmentation pipeline with Gaussian noise injection ($\sigma = 0.1$), increasing training samples by 2x.
- Implemented dropout regularization (30%) to prevent overfitting in 3-layer DNN architecture.
- Optimized hyperparameters through 500-epoch training with Adam optimizer (learning rate=0.001).
- Designed synthetic data generator creating 12 variations per character (A-D) for robust pattern learning.
- Deployed model with serialization/deserialization capabilities using HDF5 format.

•Portfolio Website Template

A responsive portfolio website template for developers and designers.

- Designed and developed a customizable portfolio template.
- Ensured mobile responsiveness with modern UI/UX design.
- Technology Used: HTML, CSS.

EXPERIENCE

•Full Stack Web Developer Intern

May - July 2024

StudyTable, Tripura

- Developed full-stack dashboard managing 500+ product orders using PHP/MySQL, reducing data errors by 25% Remote
- Implemented CRUD operations with search/sort features, improving user productivity by 30%
- Created data visualization charts using JavaScript for real-time business insights

TECHNICAL SKILLS AND INTERESTS

Languages: C/C++, Python, Java, JavaScript, HTML, CSS, PHP, React

Libraries : C++ STL, Python Libraries, Bootstrap

Web Development Tools: VS Code, Git, GitHub, XAMPP, phpMyAdmin

Frameworks: None (Prefers using HTML and CSS without JavaScript frameworks where possible)

Cloud/Databases: MySQL, Firebase

Relevant Coursework: Data Structures & Algorithms, Operating Systems, Io, Object-Oriented Programming, Database Management Systems, Software Engineering, Software Testing, Artificial Intelligence, Machine Learning

Areas of Interest: Web Development, Integrating IoT with Machine Learning, Cloud Computing, Cybersecurity

Soft Skills: Problem Solving, Self-Learning, Presentation, Adaptability, Teamwork

SCHOLARSHIPS AND AWARDS

•Reliance Foundation Undergraduate Scholarship Recipient

2022-2025

- Selected as one of 5,000 meritorious undergraduate students across India for a merit-cum-means scholarship, receiving up to INR 2 lakhs over the duration of the degree program.

•Northeast State Scholarship Awardee

2023-2026

- Awarded a scholarship based on academic excellence and financial need, contributing significantly towards college expenses.