# **Tohin Majumder**

Roll No.: 2201010904 Bachelor of Technology

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#### **EDUCATION**

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

2022-26

Sharda University, Greater Noida

### PERSONAL PROJECTS

#### Dashboard

Web-based dashboard for managing products, staff, customers, and orders.

- Built dashboard with interactive charts to track 500+ monthly product orders.
- Added search, sort, and report features; reduced data errors by 25%.
- Tech: PHP, HTML, CSS, JavaScript, Bootstrap

# •Crop Disease Detection

ML model for identifying crop diseases and suggesting pesticides.

- Achieved 92% accuracy using CNN on 10K+ crop images (TensorFlow).
- Reduced false positives by 18% via OpenCV preprocessing.
- Recommended pesticides using decision tree classification.

#### •Handwritten Letter Recognition

Deep learning model for classifying handwritten letters (A-D).

- Reached 95% accuracy using 3-layer DNN with dropout (30%) in TensorFlow/Keras.
- Boosted training set 2x using Gaussian noise ( $\sigma = 0.1$ ) and data augmentation.
- Tuned hyperparameters over 500 epochs (Adam optimizer, LR = 0.001); saved model in HDF5.

#### EXPERIENCE

•AI Intern May – July 2025

IIT Tirupati, Andhra Pradesh

Remote

- Studied YOLOv5's vulnerability to digital (FGSM, PGD) and physical (adversarial patch) attacks on 2D object detection.
- Executed frame-wise video attacks, causing significant drops in detection accuracy and revealing model weaknesses.
- Documented results to support future research on robust detection systems.

#### •Full Stack Web Developer Intern

May - July 2024

 $Study Table,\ Tripura$ 

Remote

- Built PHP/MySQL dashboard handling 500+ orders; reduced data errors by 25%.
- Added CRUD with search/sort features, boosting user efficiency by 30%.
- Integrated real-time charts for business insights using JavaScript.

# TECHNICAL SKILLS AND INTERESTS

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

**Libraries**: C++ STL, Python Libraries, Bootstrap.

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

Frameworks: React Js, Tailwind CSS. Cloud/Databases: MySQL, Firebase, AWS.

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 Reliance Foundation

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 Northeast State Community College

2023-2026

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