

Dipan Mazumder

SUMMARY/OBJECTIVE

Computer Science student with hands-on experience in AI and computer vision projects, specializing in medical image processing and pose estimation. Actively developing innovative systems such as Khelo Sathi (sports assessment platform | Under development) under SIH 2025 participation and Sarathi (Driver Monitoring System). Skilled in Python, TensorFlow, PyTorch, with proven leadership as the team lead of Dot Slash, ranked first among 140 teams in a college hackathon. Passionate about AI agents, Full Stack development, and real-world problem-solving through ML deployment.

Dipan Mazumder

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SKILLS

Technical Skills:

- Programming Languages and Coding: *Python, Java, C, Data Structure and Algorithms(C, Java)*
- Web Development: *HTML5, CSS3, JavaScript, Bootstrap, RESTful API.*
- Frameworks: *Django, Flask, Mediapipe, Leaflet JS*
- Version Control and Tools: *Git and GitHub, Visual Studios, Postman, Google Colab, Kaggle*
- Machine Learning & AI: *TensorFlow, Keras, PyTorch, CNN, SRGAN, YOLO, OpenCV, Pillow, Matplotlib*

Professional & Soft Skills:

- Leadership: Led multiple technical projects with effective team coordination and decision-making
- Communication: Delivered presentations and collaborated across diverse teams with clarity and confidence
- Time Management: Balanced academics, projects, and extracurriculars with a structured approach
- Creativity & Organization: Directed short films, organized events including college tech fests, and adapted quickly to new tools and technologies

Achievements:

- 1st place in SIH Internal Hackathon among 150+ participants
- Finalist Hack4Bengal from 7500+ participants
- Finalist Technovate by India Today
- Global recognition Hack This Fall
- Top 10 Tech Strom 2.5

CERTIFICATIONS

NPTEL Certification – *Machine Learning Using Python Programming.*

IBM Certification - Develop Generative AI Applications: Get Started.

Google Certification - Google Data Analytics Capstone: Complete a Case Study.

Projects & Experiences:

Solo Project:

- PoseEstimation | Real-time Pose Estimation using Mediapipe | Project Link: <https://github.com/dipan313/PoseEstimation>
 - Detect human body landmarks in real-time with fraction of a second latency and high accuracy of 98.5% using fine-tuned Mediapipe model.
 - Capture video and process body poses for applications such as expression detection and posture monitoring.
 - Lightweight and fast for use in real-time applications without heavy computational resources.
 - Supports AR/VR through precise body tracking.
 - Technologies: Python, OpenCV, Mediapipe

Team Projects:

- Vrinda – Plant Disease Detection & Community Platform | Hack This Fall 2024 | Project Link: <https://github.com/dipan313/Vrinda> | Blog Post: <https://www.kaggle.com/writeups/dipanmazumder/vrinda-your-ultimate-plant-solution#3303919>
 - AI-powered image-based plant disease detection and recommendations.
 - Community platform for gardening tips and query resolutions.
 - Includes fertilizer calculator, weather-based advice, and a Gemini API chatbot.
 - Technologies: TensorFlow.js, Keras, Streamlit, Gemini API, Node.js, Python
- SARATHI – Unified Attention Monitoring for Transportation Monitor | Hack4Bengal 4.0 | Project Link: <https://github.com/dipan313/SARATHI> | Blog Post: <https://www.kaggle.com/writeups/dipanmazumder/sarathi-unified-attention-monitoring-for-transpo#3301512>
 - Detects fatigue & bad posture using Mediapipe with 98% accuracy.
 - Implements dual-mode monitoring: front-view and side-view.
 - Includes screenshot capture during alert phases.
 - Future scope includes dual-camera IoT setup and edge deployment using Raspberry Pi.
 - Technologies: Python, Mediapipe, OpenCV, Raspberry Pi 4

These are a few highlighted projects; several more are in development and stored locally, showcasing ongoing exploration and innovation.

Internship:

- Machine Learning Intern | Prodigy Infotech | Feb 2024 – March 2024
 - Developed Customer Segmentation using K-Means Clustering. Project Link: <https://github.com/dipan313/Customer-Segmentation-using-K-Means-Clustering>
 - Developed House Price Prediction using Linear Regression. Project Link: <https://github.com/dipan313/House-Price-Prediction-Using-Linear-Regression>

EDUCATION

Techno International New Town – B.Tech in Information Technology

- Aug 2023 - June 2027

Bongaon High School – Higher Secondary

- Jul 2023 | Percentage: 80%

Bongaon High School – Secondary

- May 2021 | Percentage: 85.5%