

# AYUSH MAURYA

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## EDUCATION

- **Maulana Azad National Institute Of Technology, Bhopal**  
*B.Tech in Mathematics and Data Science*

CGPA: 9.88

## WORK EXPERIENCE & INTERNSHIP

- **D.E Shaw India** Hyderabad, India  
(May'25 – Jul'25)  
*(Technology Developer Intern)*
  - Created a system to aggregate data from 5+ internal platforms, processing 3000+ records daily, using Large Language Models (LLMs) for insight generation and integrated Slack-based workflows for user feedback, saving 2 days of employee effort per performance review cycle.
  - Engineered a tool to measure frame rate and memory usage over time using web workers.
  - Identified performance bottlenecks in an internal React component by profiling main-thread tasks, determining the grid component as the primary cause of delays, and evaluated its performance against another Internal component for requirements under high-frequency data loads.
  - **Tools/Languages used:** React, Python, Golang, JavaScript

## PROJECTS

- **Code For Good '25 Hackathon Project - Winner** in
  - Constructed an end-to-end platform for an NGO to digitize farmer data for 1,500+ farmers, integrated Twilio API for SMS alerts, and designed role-based dashboards for 5+ stakeholder roles, reducing reporting time by 45%.
  - Streamlined program tracking and donor reporting, enabling 200+ users to access secure, role-specific views with real-time data updates.
  - **Tech Stack:** ExpressJS, Twilio API, React, MongoDB, ChartJS
- **Code For Good '24 Hackathon Project** in
  - Developed a full-stack platform to track student assessments for 550+ students in rural Maharashtra, improving data accuracy by 40% and saving 50+ admin hours monthly.
  - Implemented secure REST APIs with role-based access and data visualization dashboards, enabling class-level and student-level performance analytics for 20+ educators.
  - **Tech Stack:** ExpressJS, MongoDB, React, ChartJS
- **Bird Sound Classification** G
  - Trained a Convolutional Neural Network (CNN) machine learning model on BirdCLEF 2024 dataset, converting audio signals into mel spectrograms for 5,600+ endangered species samples, achieving 81% accuracy and an F1 score of 0.81.
  - Enhanced species-level classification in noisy environments, supporting conservation efforts in the Western Ghats.
  - **Tech Stack:** Python, Tensorflow
- **Lox Programming Language Interpreter** G
  - Built a tree-walk interpreter for Lox programming language using a recursive descent parser.
  - Implemented support for expressions, control flow, functions, and object-oriented programming.
  - **Tech Stack:** Java
- **SnippetBox** G
  - Designed a Pastebin-like web application for easily creating, organizing, and sharing code snippets.
  - Implemented unique URLs, user authentication, and expiration controls to manage 1,200+ snippets efficiently.
  - **Tech Stack:** Golang

## POSITIONS OF RESPONSIBILITY

- **Web Development Lead, E-Cell, MANIT Bhopal** 2023 – 2025
  - Directed a team of 3 developers and collaborated with 2 designers to create landing pages for E-Cell and E-Summit 2024 & 2025, attracting 3,820+ visitors and reducing load time by 65% through performance optimizations.
  - Implemented a serverless backend using Appwrite to collect form data from 1,650+ event registrations, logging into Google Sheets for efficient outreach management.

## TECHNICAL SKILLS

- **Programming and Scripting Languages:** C++, Golang, Javascript, Python, SQL
- **Tools/Frameworks:** Git, Github, React, Linux, PostgreSQL, LLMs

## ACHIEVEMENTS & EXTRACURRICULAR ACTIVITIES

- Winner of the **Code For Good 25** hackathon organised by **JP Morgan & Chase** for the problem statement by the NGO **CML** (Centre for microfinance and livelihood) - A Tata Trusts initiative (2025)
- Achieved Global Rank 948 in **Codeforces** Round 927 (Div 3) (2024)
- Achieved a max rating of 1555 (Specialist) on **Codeforces** (2024)
- Secured a SGPA of 10.00 in 3 semesters and maintained department rank 1