Moradiya Om Bipinbhai

Indian Institute of Technology Dhanbad

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Education

Indian Institute of Technology, Dhanbad   **Dec 2021 – May 2025**
Bachelor of Technology in Electronics and Communication Engineering   *Dhanbad, Jharkhand*

Competitive Programming

Platform	Rating	Problems Solved	Handle
Codeforces	1951 (Candidate Master)	1900+	moradiya84
CodeChef	2305 (6-star)	250+	m0radiya84
Leetcode	2511 (Guardian)	950+	moradiya84
Atcoder	1503 (3-kyu)	200+	moradiya84
Project Euler	Globally Top 1.2%	78+	moradiya84

Experience

Turing Enterprises Inc.   **Remote**
C++ Developer   *July 2025 - Present*

- Designed and delivered original C++ competitive-programming problems with full solution stacks (brute-force and optimized), deterministic testcase generators, and validators; such that latest Qwen and Tencent LLMs could not produce correct optimal solutions.
- Promoted to reviewer: audited C++/Python tasks end-to-end, checked correctness from brute → optimal multiple solution paths, fixed unstated-assumption issues, verified edge-case coverage and reviewed chain-of-thought step by steps to make sure steps taken to reach optimal approach are correct logically.
- Built automation and delivery tooling to standardize final strcture: packaging scripts, requirement checks, and validation pipelines that enforce format, completeness, and test coverage.

Technical Projects

UTLib: User-level Threading Library in C++

- Built a user-level threading system supporting scheduling with context switching using `setjmp/longjmp`.
- Designed a timer-interrupt based preemptive scheduler using `SIGALRM`, enabling automatic thread switching.
- Created a lightweight custom `mutex` implementation for synchronization and race condition avoidance.
- **Tech Stack:** C++, CMake, Cooperative/Preemptive Scheduling, Mutex Implementation

First Person 3-D World

- Developed a **retro-style ASCII-based first-person shooter game** using C++ and ray-casting, featuring smooth movement, collision detection, and dynamic shading.
- Implemented ray-casting and shading with Windows API for an immersive ASCII FPS.
- **Tech Stack:** C++, Ray-Casting, Windows API

Other Projects: **Gen-AI in Health Sector**, **Snake Game**, **Billbuild**, **Turn Based BattleGame**

Achievements (Links of the achievements)

- Got **All India Rank 1 (out of 1 million candidates)** in **Mathematics in JEE Mains.**
- Achieve National Rank 13 in **ICPC Regional's Final -** India in 2025.
- Regionalist (rank 90) in **IICPC India** in 2025.
- Currently the **48th Highest** rated coder on **CodeChef** platform. and 46th Highest Rated coder on **Leetcode** in India
- Winner of Doctorate level **Math Research competition 'Mathsquivesta'** held by the math club of IISER Kolkata.
- Achieved Finalist Spot **(top 65 out of 38600+ teams)** in the **'HackOn'** 2024 hackathon conducted by Amazon.
- Achieved Finalist Spot **(top 100 out of 110k+ participants)** in the **'HackWithInfy'** 2024 hackathon conducted by Infosys at Pune Headquarters and advanced to Grand Finale **(top 6 teams out of 20).**
- Achieved Finalist spot **(out of 160k+** participants) in the **'Code-Gladiators'** 2024 National Coding Challenge.
- Finalist in the **3-Mathsketeer** competition conducted by the M&C department of IIT Dhanbad in 2022 & 2023

Technical Skills

Programming Languages: C++, C#, C, java, HTML, CSS, JavaScript
Relevant TechStacks: Data Structures and Algorithms, Operating Systems, Object-Oriented Programming, Machine Learning, Neural Network, System Design.