

Rohan Roy

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EDUCATION

Vellore Institute Of Technology, Chennai Campus

July 2025 – Present

Bachelor of Technology in Computer Science and Engineering

CGPA: 9.00

- **Relevant Coursework:** Data Structures & Algorithms, Object-Oriented Programming (C/C++), Problem Solving Using Python, Database Systems, Operating Systems, Blockchain Architecture.

TECHNICAL SKILLS

- **Programming Languages:** C/C++, Go, Python, JavaScript, TypeScript, HTML/CSS
- **Frameworks & Libraries:** React, Express.js, Pandas, NumPy
- **Databases:** MySQL, MongoDB
- **Tools & Technologies:** Git, Bash, Linux, Docker, Postman, Vim

PROJECTS

Scimp – Terminal ASCII Video Engine — C++, Systems Programming, Data Compression

- Developed a high-performance terminal rendering engine and custom binary container format (`.ascv`) tailored for efficient ASCII video serialization and playback.
- Optimized frame decoding throughput and terminal escape sequence rendering, achieving smooth real-time frame rates with minimal CPU and memory overhead.

CFriendSubmission – Codeforces Browser Extension — JavaScript, Chrome Extensions API, REST APIs

- Developed a browser extension that directly embeds friends' submissions, verdict statuses, and solution links directly into the active Codeforces problem interface.
- Leveraged the Codeforces API and asynchronous DOM manipulation to seamlessly fetch, cache, and inject friend activity without degrading page performance.

IoT Environmental Dashboard — C++, Python, MySQL, JavaScript

- Developed an IoT pipeline using an ESP8266 microcontroller to collect environmental data (pollutant concentration, flame detection, humidity/temperature values).
- Built a backend database integration to store real-time sensor streams and developed a web interface for live data visualization.

ACHIEVEMENTS & ACTIVITIES

- **Competitive Programming:** Solved over 400+ algorithmic problems across Codeforces, LeetCode, CodeChef, and AtCoder.
- **Extracurricular Activities:** Member of the Competitive Programming divisions at AWS Cloud Club and Microsoft Innovations Club; actively collaborate on algorithmic problem solving, contest strategies, and peer discussions.