# RAHUL CHOWDHURY

BTech CSE AIML | Full-Stack MERN Developer

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## Education

**BTech in Computer Science and Engineering (AIML)** **Jul 2023 – Present**
*University of Engineering and Management, Jaipur, Rajasthan* *CGPA: 8.27 (up to 4th semester)*

## Technical Skills

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| **Languages:** | C, C++, Python, HTML5/CSS3, JavaScript (ES6+), TypeScript |
| **Frameworks/Libraries:** | React, Node.js, Express.js, REST APIs, Axios, JWT, Tailwind CSS, Socket.io (Basics) |
| **Developer Tools:** | Git, GitHub, Postman, Docker (Basics) |
| **Databases:** | MongoDB, MySQL |
| **System Design:** | REST API Design, Rate Limiting, Caching (Redis Basics), Load Balancing, Scaling Concepts |
| **Coding Profiles:** | LeetCode, Code360, GeeksforGeeks |
| **Soft Skills:** | Problem-Solving, Team Collaboration, Fast Learner |

## Projects

**Portfolio Website** | *React, React-Router-Dom, Redux , EmailJS* | ⬡ | 🔗 **August 2023**
- Created a personal portfolio using React and Redux for state management.
- Used React Router for seamless navigation and EmailJS for contact form integration.

**Linkite - URL Shortener with Advanced Analytics** | *MERN* | ⬡ | 🔗 **Jan 2025 – Apr 2025**
- Built a full-stack URL shortener with analytics (10k+ links), QR generation, and high-volume API support.
- Implemented authentication from scratch using JWT and integrated premium features including payment support for extended API limits.
- Built robust analytics dashboards to track link performance, clicks, and user activity in real-time.
- Developed a browser extension using HTML, CSS, and JavaScript to auto-shorten URLs with a single click.
- Ensured URL security via multi-stage validation: HTTPS verification, Google Safe Browsing API, and live GET request checks.

**NeoGPT – Multilingual AI Chatbot** | *MERN, Groq LLM, Tavily API* | ⬡ | 🔗 **June 2025 – Sep 2025**
- Built a multilingual conversational AI chatbot with persistent chat memory using Groq LLM and MongoDB.
- Implemented real-time web search via Tavily API with automatic tool invocation for up-to-date responses.
- Designed thread-based conversations with URL routing, history sync, and smooth UX across devices.
- Optimized performance using in-memory caching and database fallback for fast context restoration.

## Certificates

**The Joy of Computing using Python [Elite + Silver]** | **NPTEL** | 🔗 **Jun. 2024 – Jul. 2024**
- Learned advanced Python concepts like OOP, NLP, and data structures.
- Completed hands-on projects using libraries like NLTK for NLP and implemented complex algorithms.

**Programming in C** | **Infosys Springboard** | 🔗 **May. 2024 – Jun. 2024**
- Learned C programming with a focus on pointers, dynamic memory, and file handling.
- Developed projects showcasing data structures and memory management.

**Full-Stack Development (MERN) & System Design** | **100xDevs** | 🔗 **Nov. 2024 – Jul. 2025**
- Completed 0–1 and 1–100 roadmap covering JavaScript (async), Node.js, TypeScript, Express (advanced), SQL/NoSQL (Postgres, MongoDB).
- Gained expertise in system design concepts — rate limiting, caching (Redis), load balancing, sharding, replication, message queues (Kafka), and resiliency.
- Built production-grade projects: Paytm-like wallet app, real-time communication systems with WebSockets, and serverless backends.
- Learned DevOps fundamentals: Docker, Kubernetes, CI/CD pipelines, AWS deployment (EC2, S3, LB), monitoring with Prometheus & Grafana.

## Achievements

- Solved 200+ problems across LeetCode, GeeksforGeeks, and Code360, strengthening DSA proficiency.
- Earned **Ninja Dominator** rank and recognized as a **3-time College Topper** on Code360.
- Made 150+ GitHub contributions, actively building and maintaining personal full-stack projects.
- Collaborated on open-source projects by raising pull requests, resolving issues, and improving documentation.