

AMAN KUMAR

Darbhanga, Bihar

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Education

National Institute of Technology Mizoram

Bachelor of Technology in Electronics and Communication Engineering — CGPA: 8.18/10.0

December 2021 – May 2025

Aizawl, Mizoram

Technical Skills

Programming Languages: C, C++, Java, JavaScript, Python, SQL

Frontend Technologies: HTML5, CSS3, JavaScript, ReactJS, Redux, Bootstrap, Tailwind CSS

Backend Technologies: Node.js, Express.js, REST API, JWT, MySQL, MongoDB, Firebase

Testing & DevOps: JUnit, Cucumber, RestAssured, Postman, Git, GitHub, Jenkins CI/CD

Core Concepts: Data Structures and Algorithms, Object-Oriented Programming, Database Management Systems

Professional Experience

Indian Institute of Technology Kanpur

May 2024 – July 2024

Op-Amp Design Internship - Electronics Research Laboratory

Kanpur, Uttar Pradesh

- Designed Operational Transconductance Amplifier circuit achieving 45dB gain using LTSpice simulation tools.
- Improved circuit efficiency by 15% through MOSFET parameter optimization techniques.

Bharat Electronics Limited

June 2024 – July 2024

Engineering Trainee - Communications Division

Bangalore, Karnataka

- Developed secure Repeater Network Communication system in C language with 99.7% uptime.
- Analyzed signal jamming systems, documenting 5 critical security vulnerabilities.

Suvidha Foundation

November 2023 - January 2024

Full Stack Web Developer Intern

Remote

- Created responsive website using ReactJS and Tailwind CSS, serving over 1000 monthly visitors.
- Built RESTful API backend with Express.js, Node.js, and MongoDB for user authentication.

eQ Technologic

January 2024 – Present

Software Development Engineer in Test (SDET) Intern

Remote

- Automated 40+ REST API test cases using Java, RestAssured, and JUnit, reducing manual testing by 40%.
- Implemented continuous integration testing with Jenkins, ensuring 98% code coverage.

Projects

Automatic Number Plate Recognition System | MERN Stack, OpenCV, Tesseract OCR

June 2024 - Present

- Engineered ANPR system with 95% accuracy using computer vision algorithms and OCR technology.
- Integrated with government vehicle databases for real-time verification and monitoring.

Pixabay Gallery Application | ReactJS, Tailwind CSS, RESTful API

February 2024 - March 2024

- Developed responsive image gallery with advanced search and 6 filtering options using Pixabay API.
- Achieved 98% mobile compatibility and optimized loading performance for image-heavy content.

Wideband Metamaterial Absorber with ATAT | High Frequency Structure Simulator (HFSS)

August 2024 - December 2024

- Designed wideband absorber using Advanced Technology for Absorption and Transmission techniques.
- Achieved 92% absorption across 5-18 GHz frequency range for electromagnetic stealth applications.

Multi-Frequency Electromagnetic Wave Absorber | HFSS, MATLAB

September 2024 - Present

- Developed quad-band absorber with 97% efficiency at key wireless communication frequencies.
- Reduced device thickness by 35% through metamaterial parameter optimization.

Achievements & Certifications

- Competitive Programming:** Solved 500+ Data Structures and Algorithms problems on LeetCode (Top 8%), GeeksforGeeks (2100+ score), and Coding Ninjas (4-star coder)
- Hackventure 2.0:** First Prize in Idea Pitching and Third Prize in Software Development at NIT Mizoram hackathon (2024)
- Smart India Hackathon 2024:** Team Lead representing NIT Mizoram at IIT BHU for National Level finals
- Certifications:** Web Development Bootcamp (Udemy), MATLAB Onramp (MathWorks) — **Volunteer:** Sanchar Mitra at Department of Telecommunication, Government of India