# Aman Kumar

# Darbhanga, Bihar

## Education

# National Institute of Technology Mizoram

December 2021 - May 2025

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

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

Remote

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

#### **Bharat Electronics Limited**

June 2024 - July 2024

Panchkula, Haryana, India

- Engineering Trainee Communications Division

  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

Pune, Maharashtra, India

- 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.

# ${\bf Suvidha\ Overseas\ Website}\ |\ {\it ReactJS},\ {\it Tailwind\ CSS},\ {\it Express.js},\ {\it MongoDB},\ {\it NodeJS}$

December 2023 - January 2024

- 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.

# $\textbf{Multi-Frequency Electromagnetic Wave Absorber} \mid \textit{HFSS}, \textit{MATLAB}$

August 2024 - December 2024

- Developed quad-band absorber with 99.9% 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 (Contest Rating: 1429 (Top 71.82%)), GeeksforGeeks (1600+ score, 3-star coder), and Coding Ninjas
- Hackventure 2.0: First Prize in Idea Pitching and Third Prize in Software Development at NIT Mizoram hackathon (2024)
- Smart India Hackathon 2024: Selected for Internal SIH to represent in National SIH.
- Certifications: Web Development Bootcamp (Udemy), MATLAB Onramp (MathWorks) Volunteer: Sanchar Mitra at Department of Telecommunication, Government of India