

# RISHABH RAJ

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## EDUCATION

### National Institute of Technology, Delhi

B.Tech in Electrical & Electronics Engineering

May 2025

CGPA-7.43 SGPA-9.05

## EXPERIENCE

### RapidBox

June 2024- July 2024

Associate Software-Engineer Intern

Remote

- Developed a **Java 17, Spring Boot 3** back-end for a nationwide vehicle rental platform covering **400+** cities with **10,000+ concurrent users**, cutting booking time by **50%**.
- Deployed on **AWS with Tomcat**, ensuring scalability and high availability; automated CI/CD pipelines, reducing release times by **60%**.
- Achieved **95%** endpoint success in Postman testing, lowering post-deployment bugs by **40%**.
- Optimized **MySQL queries**, cutting execution time by **25%** and enhancing response time by **40%** during peak traffic.

### Engineers' Cradle

June 2023- July 2023

Data and Market Research Intern

Remote

- Formed partnerships with **200+** technology institutions and engineering firms, uncovering **100+** opportunities for business expansion in the **financial sector**.
- Analyzed **50+** prospective clients, compiled contact databases, created **30+** detailed organizational profiles, identified key decision-makers, and devised strategic engagement plans.

## PROJECTS

### Medikart - Comprehensive MERN Stack HealthCare Delivery Website

[Live](#) [GitHub](#)

- Architected a full stack website with [ReactJS](#) and dedicated **MongoDB** collections achieving a perfect score of **100** for Accessibility and Best Practices from PageSpeed Insights.
- Engineered 5+ robust back-end APIs using **Node.js**, **Express** and utilized [MongoDB Atlas](#) for efficient authentication and order handling.
- Strengthened security with **JWT** authentication and **bcrypt.js**, reducing unauthorized access by 70% and implementing **Google reCAPTCHA v2** to prevent bot interactions.
- Implemented cart functionality with **Context Reducer API** and real-time notifications using **react-hot-toast**, increasing user engagement by 50%.
- Incorporated **Stripe API** for online payments, achieving a 95% transaction success rate and ensuring secure payments.

### AgriProPlus - An Extensive Agriculture Assistance Tool

[Live](#) [GitHub](#)

- Built the frontend using [React](#) and [Chakra UI](#), integrating news and YouTube APIs to deliver farming content.
- Executed user authentication with **Firestore**, customised a Python scraper for extracting agricultural schemes data, stored in [MongoDB](#), and served via **Node.js/Express** backend.
- Created a LSTM-based ANN model for crop recommendations with 98.48% accuracy to cut agricultural losses by 20%.

### Integrated AI-driven Condition Monitoring and Fault Diagnosis for Induction Motors

[\[Report\]](#) [GitHub](#)

- Engineered hardware and software model for fault diagnosis of single-phase induction motors using ANN and DWT.
- Deployed deep learning based **Motion Amplification Video (MAV)** techniques to visualize and detect incipient mechanical and vibrational faults.
- Formulated a **DWT-based ANN** model utilizing the tanh activation function, achieving 98.70% accuracy in fault detection.

## TECHNICAL SKILLS

**Languages & Tools:** Python, Java, C++, JavaScript, Microsoft Excel, SQL, Matlab

**Frontend:** React, Next, TailwindCSS, HTML, CSS, Bootstrap, Chakra UI, YAML

**Backend & Databases:** Node.js, Express.js, PostgreSQL, MongoDB

**Developer Tools:** GitHub Actions, Postman, VS Code, GitHub, Eclipse, Thunder Client, Firebase

## POSITIONS OF RESPONSIBILITY

**Placement Cell Sector Head**-Led a team of 25+ junior coordinators for outreach and a POC for 30+ companies.

**NITD Alumni Cell- General Secretary**-Organized impactful alumni sessions and facilitated connections with 1500+ alumni

**Technical Club Upvision** -Management Head-Conducted 10+ technical events with peak of 500+ attendees and 10k in prizes.

## ACHIEVEMENTS AND RECOGNITION

- Global Rank **38** in START115C and Rank **145** in START114C on Codechef out of more than **5000** participants globally.
  - Secured a global rank of **1352** in LeetCode Contest 329, among **25,000+** participants, in top **9.36%** coders site-wide.
  - Flipkart Grid Semi-Finalist** ending up in top **800** qualifiers out of **4,00,000+** participant teams across the entire nation.
  - Top **5** percentile in Adobe X GeeksForGeeks Generative AI Hackathon out of **50000+** participants across the entire nation.
- Coding Profiles** - [\[Leetcode \(1750+\)\]](#) [\[GFG\]](#) [\[Codeforces \(Specialist -1400+\)\]](#) [\[Codechef-3 stars \(max 1700+\)\]](#)