

RAJYAVARDHAN SINGH RATHORE

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Professional Summary

Strong foundation in software engineering, full-stack development, and AI/ML, with a focus on building scalable web applications and intelligent software systems. Proficient in designing RESTful APIs, backend systems, and machine learning solutions using Python, C++, JavaScript, Flask, React, and the MERN stack.

Education

PDPM Indian Institute of Information Technology

Aug 2024 – Jun 2028

Bachelor of Technology in Electronics and Communication Engineering

Jabalpur, India

Coursework: Data Structures & Algorithms, Machine Learning, OOP, DBMS, Operating Systems, Computer Networks

Technical Skills

Languages : C++, Python, Java, JavaScript, HTML, CSS

Frameworks : Node.js, Express.js, React Native, Next.js, Flask

Libraries : NumPy, Pandas, Matplotlib, Plotly, Seaborn, OpenCV, PyTorch, TensorFlow, Scikit-Learn

Backend & Databases : REST APIs, Microservices Architecture, Authentication, MCP, MongoDB, MySQL

Developer Tools : Git, GitHub, AWS, Postman, Docker, Streamlit, LangChain, Linux, Render, Vercel

Experience

Electronics and Robotics Society

Apr 2025 – Present

Co-Coordinator

- Coordinated 3+ technical projects and events for **40+** members across AI/ML, robotics, and software teams.
- Mentored **15+** members in system design, AI/ML, and robotics, providing technical guidance and code reviews.
- Prepared software modules for Swarm Bots using multi-agent coordination, communication protocols, and real-time optimization.

Can You Hack It

Sep 2025

Team Lead

- Led a team to develop **ConvoCheck**, an AI-driven NLP application for chat summarization and toxicity detection using Python, Flask, and Gemini APIs.
- Improved and implemented real-time content moderation with a responsive UI, reducing moderation backlog by **60%**.
- Automated AI-driven moderation workflows, reducing manual review effort by **30%** while improving processing efficiency.

Projects

NeuroLearn AI | *React, Flask, MongoDB, Whisper* | [GitHub]

Jun 2026 – Present

- Developed an AI-integrated full-stack platform with 3 user roles (Student, Teacher, Admin) for dyslexia screening using React, Flask, MongoDB, and REST APIs.
- Built an automated assessment pipeline using **OpenAI Whisper** and **Random Forest** to analyze reading accuracy, fluency, and spelling for dyslexia risk prediction.
- Created a scalable backend with **5+ REST APIs** for authentication, assessments, reports, and progress tracking.

StockPilot - AI Smart Warehouse Management | *MERN Stack, JWT* | [GitHub]

May 2026 – Jun 2026

- Created a full-stack MERN warehouse management platform supporting **2 user roles**, **3+ REST APIs**, QR-based inventory tracking, warehouse mapping, and **JWT-based RBAC**.
- Integrated real-time inventory monitoring, analytics dashboards, and an AI-assisted chatbot using the Gemini API, enabling automated inventory queries and operational insights.
- Deployed the application on Vercel and Render, optimized MongoDB queries, and improved inventory lookup performance by approximately **30%** while maintaining responsive backend services.

JARVIS AI – Project Friday | *OpenCV, LiveKit, Speech Recognition* | [GitHub]

Jun 2025 – Jul 2025

- Built a multimodal AI assistant integrating voice interaction, computer vision, web search, and task automation.
- Implemented low-latency AI **pipelines** using LiveKit, OpenCV, Speech Recognition, and Text-to-Speech.
- Designed a scalable cross-platform architecture optimized for modularity, reliability, and real-time performance.

Achievements & Extracurricular

- Competitive Programming :** 3-Star on CodeChef, Pupil on Codeforces, solved **350+** problems across LeetCode, Codeforces, CodeChef, and Code 360.
- Jagrati :** Mentored and taught **100+** underprivileged students through educational outreach initiatives.
- PR & Social Media Lead, Aero Fabrication Club :** Managed digital outreach and technical content, increasing monthly social media reach from **2K to 100K+**.
- Secured National Ranks in NPTEL courses :** Achieved **Top 2%** in **Introduction to IoT** and earned an Elite certification in **Programming in Java**.