

MAYANK RAJ

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Education

University of Engineering and Management, Jaipur

B.Tech in Computer Science and Engineering — CGPA: 8.9

Jul 2022 – Present

Jaipur, Rajasthan

Bihar School Examination Board, India

Class XII — Percentage: 72%

May 2020 – Feb 2022

Bhagalpur, Bihar

Bihar School Examination Board, India

Class X — Percentage: 82.3%

Mar 2019 – Feb 2020

Bhagalpur, Bihar

Relevant Coursework

- Data Structures
- Algorithms Analysis
- Machine Learning
- Software Methodology
- Database Management
- Computer Networks

Technical Skills

Languages: Python, Java, C, HTML/CSS, JavaScript, SQL

Developer Tools: VS Code, Linux, Git, Github, AWS (EC2, S3), Docker

Technologies/Frameworks: React, Next.js, Flask, Numpy, Pandas, WebSocket

Projects

AI-Powered Finance Management System | GitHub | Live Demo

- **Tech Stack:** Next.js, Tailwind CSS, Supabase, Prisma, Gemini AI, Inngest, Resend, Recharts
- Built a full-stack finance management system supporting multi-account tracking for expenses and income.
- Integrated Gemini AI with OCR to extract transaction data from receipts, achieving 92% accuracy.
- Automated monthly summary reports via Inngest and Resend, reducing manual reporting effort by 100%.
- Implemented interactive visualizations (pie/bar charts) with Recharts for budget insights.

Diabetes Prediction System using ML | GitHub | Live Demo

- **Tech Stack:** Python, Scikit-Learn, Pandas, NumPy, Flask
- Built a machine learning model using medical datasets with 720 cases and 17 features to predict diabetes risk.
- Applied preprocessing, feature engineering, and model tuning, achieving 92% accuracy and 91% recall.
- Compared Logistic Regression and Decision Tree models to optimize performance and interpretability.

Real-Time Video Call App | GitHub | Live Demo

- **Tech Stack:** React, WebRTC, WebSocket
- Designed a secure peer-to-peer video call platform with real-time room creation and user-based connection handling.
- Implemented WebSocket-based signaling and ensured cross-device compatibility with responsive UI.
- Enabled stable video communication for up to 50+ concurrent users, minimizing latency by 15%.

Experience

AI-ML Intern

Jul. 2024 - Sep. 2024

EduSkills Foundation (Remote)

- Trained and optimized deep learning models using **TensorFlow** and **PyTorch**, achieving a 20% improvement in model accuracy.
- Implemented object detection systems, reducing error rates by 25% through optimization techniques and fine-tuning.
- Preprocessed and managed a dataset of 10,000+ images, enhancing model efficiency and scalability.

Certifications

- Database Management System — NPTEL (IIT Kharagpur) **View Certificate**
- Python Programming — NPTEL (IIT Madras) **View Certificate**
- Data Structures and Algorithms — Infosys Springboard **View Certificate**

Achievements

- Ranked in the **top 5%** of the learners in the NPTEL database management system course of IIT Kharagpur.