VISHNU PRATAP SINGH RAJPUT

Python Full-Stack Developer

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SUMMARY

AI & ML Engineering graduate skilled in Python, Django, SQL, JavaScript, and AWS. Developed industry-level projects including HeartVision (real-time rPPG HR model), Crop Yield Prediction, and MovieCall. Strong in API integration, debugging, SDLC, and deep learning with internship experience and multiple national hackathon wins.

TECHNICAL SKILLS

- **Languages** :Python, JavaScript, SQL
- **Frontend** :HTML5, CSS3, Bootstrap
- **Backend** :Django
- **Databases** :MySQL
- **Tools** :Git, GitHub, MS Office, VS Code
- **AWS Cloud**:EC2, S3, IAM, VPC, Lambda, SNS

EDUCATION

- **Bachelor of Technology in Artificial Intelligence & Machine Learning**

  Sagar Institute of Research & Technology, Bhopal | CGPA: 8.12 | Aug 2021 – Jun 2025
- Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming, System Design, Distributed Systems

PROJECTS

HeartVision | Python, Streamlit, OpenCV, Deep Learning
Live: https://rppghrmonitor.streamlit.app/
- Developed a deep learning–based rPPG model for real-time heart rate detection using webcam/video feed.
- Achieved accurate pulse estimation through color signal extraction and FFT-based processing.
- Deployed interactive web app on Streamlit for live monitoring.

Crop Yield Prediction | Python, Django, Random Forest, Weather API
GitHub: https://github.com/vpsrathod/Crop-Yield-Prediction.git
- Designed ML pipeline with 82% accuracy using soil nutrients, crop type & location data.
- Integrated external Weather API, handling real-time data ingestion for scalable predictions.

Movie Call | JavaScript, CSS, HTML, OMDB-API, YouTube-API
Live: https://vpsrathod.github.io/Movie-Call/
- Developed a movie search app using OMDb and YouTube APIs to fetch real-time movie data and trailers.
- Built a responsive, Netflix-style UI with optimized search flow and smooth API handling.

INTERNSHIPS

AI Application Developer Intern | Virtuon AI Pvt. Ltd. | Feb 2025 – Apr 2025
- Worked on an AI research project using rPPG (remote photoplethysmography) for real-time heart rate estimation.
- Assisted in data preprocessing, model training, and evaluation using deep learning models (CNN, Transformer).
- Helped integrate the model into a Streamlit-based web app for real-time heart rate monitoring.
- Gained practical experience in AI pipelines, deployment, and healthcare-based applications.

Co-Founder | Paniwala (Startup) | Jul 2022 – Dec 2023
- Co-founded a startup idea focused on water bottle ordering and distributor management.
- Worked on idea development, business logic, UI design, and presentations.
- Led team coordination, field research, and problem analysis to validate the business model.
- Presented the project at national hackathons — Top 20 at IIT Roorkee Innowave, 1st at JLU Bhopal & SISTec Bhopal.

CERTIFICATIONS

- **Machine Learning and AI** Workshop | IBM | IIT Roorkee | March 2023
- **Participation at Cognizance 2024** | IIT Roorkee | April 2024
- **Web Development using Django Framework** | Cybrom Technology Pvt. Ltd.

LEADERSHIP & ACHIEVEMENTS

- Winner of multiple Hackathons (JLU Bhopal, SISTec Bhopal).
- Copyright of the Startup project -Paniwala.
- Convener, Training & Placement Cell – Organized 10+ drives, supported 150+ students.
- Coordinator, National Hackathon – Led sessions for 300+ students.