SAIRAJ JADHAV

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PROFESSIONAL SUMMARY

AI & Data Science Engineer and Published Researcher specializing in bridging the gap between digital intelligence and physical reality. As a Proven Lead Architect, I have extensive experience building scalable solutions for public safety, biosurveillance, and assistive technology. I am highly proficient in Full-Stack development and machine learning, with a consistent track record of leading cross-functional teams to victory in national-level hackathons.

EDUCATION

Dr. D.Y. Patil College of Engineering and Innovation   **Pune,Maharashtra**
B.Tech in AI & Data Science (2023 – 2027)   CGPA : 8.11 (Average of semester scores: 9.03, 7.71, 7.41, 8.23)

Abasaheb Garware College of Arts and Science   **Pune,Maharashtra**
Higher Secondary Education (HSC) (2022)   Marks: 70.33%

EXPERIENCE

Lead Full-Stack Engineer & Team Lead — Viro-AI Team Rakshanu   **Aug 2025 – Present**

- Architecting the technical roadmap and lead a 4-member engineering team for an AI-driven viral genomic analysis platform.
- Engineered robust ETL pipelines using Python and Django to normalize massive datasets from NCBI and PubChem.
- Integrated custom ML models (Scikit-learn) to classify viral variants and predict protein-ligand interactions with high reliability.
- Won 1st Place at Dr. D.Y. Patil Ideathon and 2nd Prize at National Sci-Tech Hackathon (AISSMS College of Engineering).

PROJECTS

SRANS | Smart Regional Alert & Navigation System   **Github**

- Architected a resilient disaster-tech platform providing real-time navigation and alerts during infrastructure failures and disease outbreaks.
- Designed an off-grid LoRa-based communication system using ESP32 to transmit SOS data in areas without cellular connectivity.
- Published research paper detailing the system architecture in the International Journal of Advanced Computing Technologies (IJACTE).

NutriCare 360 | Smart Health Management   **Github**

- Built a MERN-stack ecosystem for secure medical record management, featuring automated medicine reminders and prescription storage.
- Implemented a nutrition intelligence module that provides personalized dietary suggestions via external API integrations.
- Designed a responsive UI/UX to ensure accessibility for elderly users, focusing on high-contrast visuals and intuitive navigation flows.

TECHNICAL SKILLS

- **Languages:** Python (Advanced), JavaScript (ES6+), TypeScript, C/C++, SQL (PostgreSQL/MySQL), HTML5/CSS3.
- **Web Development:** MERN Stack (MongoDB, Express.js, React, Node.js), Django, Flask, REST APIs, Tailwind CSS.
- **AI & Data Science:** Machine Learning (Scikit-Learn), Computer Vision (OpenCV, YOLOv8), Deep Learning, Pandas, NumPy, Bio-Analytics.
- **IoT & Embedded Systems:** ESP32, LoRa Communication, Arduino, Raspberry Pi, Circuit Design, Firebase IoT.
- **Tools & DevOps:** Git, GitHub, Postman, Vercel/Netlify Deployment.

ACHIEVEMENTS

- **1st Prize** – Ideathon (Innovation Pitch Competition): Led Team Rakshanu to first place at Dr. D.Y. Patil College of Engineering and Innovation for the Viro-AI project.
- **2nd Prize** – National Level Sci-Tech Hackathon 2025: Secured second place and a ₹3000 cash prize at AISSMS College of Engineering for Viro-AI development.
- **3rd Position** – Hackathought Competition: Recognized for innovative problem-solving and excellence in teamwork.
- **Published Researcher:** Authored and published a research paper on the Smart Regional Alert & Navigation System (SRANS) in the International Journal of Advanced Computing Technologies (IJACTE).

CERTIFICATIONS

- **Developing AI Applications with Python and Flask**   **IBM | LINK**
- **Developing Back-End Apps with Node.js and Express**   **IBM | LINK**
- **Developing Front-End Apps with React**   **IBM | LINK**
- **Python for Data Science and AI**   **IBM | LINK**
- **Python Data Structures and Algorithms**   **IBM | LINK**
- **Introduction to Cloud Computing**   **IBM | LINK**
- **Introduction to Software Engineering**   **IBM | LINK**