# Siddhant Patil

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## Education

**Savitribai Phule Pune University** — Pune, India
*B.E. in Artificial Intelligence & Data Science | GPA: 8.5/10* — *2022 – 2026*

**PES Modern English Medium School | Ashok Vidyalaya Jr. College** — Pune, India
*10th: 96.20%, 12th: 78.83%* — *2008 – 2022*

## Experience

**IndoAI Technologies Private Limited** — Pune, India
*Machine Learning & AI Intern (Onsite)* — *Jun 2024 – Mar 2025*

- Designed autonomous ML systems to automate predictive models with Power BI dashboards for actionable insights.
- Built a YOLOv8 fire & smoke detector (92.6% mAP) on 6,391 images over 200 epochs for real-time hazard monitoring.
- Leveraged DeepStack for custom vehicle & person detection (98% accuracy) on 10,000+ images; deployed to Raspberry Pi & Jetson Nano via ARM64, OpenCV, TensorFlow Lite.
- Developed interactive frontends (HTML, CSS, JavaScript, React.js, Axios) and deployed via Hostinger to interface with ML models.

**CoDE Club PESMcoe – Club of Data Engineers** — Pune, India
*Co–Technical Head (Full-Time)* — *Oct 2023 – Oct 2024*

- Utilized popular Python libraries such as NumPy, Pandas, OpenCV, TensorFlow, and Scikit-learn to drive hands-on sessions, motivating 60+ students to explore AI, ML, and data science.
- Overseeing and managing club activities related to technology and development, leading to a 120% growth in technical support engagement during my tenure.

## Projects

**Care Vault: Women & Child Safety AI (1st Place, Magnitude1.0 National Hackathon)** Demo | GitHub
2024

- Hand gesture emergency alert system using OpenCV achieves 93% accuracy on a 5-class, 1440-sample dataset (precision: 83–100%, recall: 86–98%, F1-score: 90–97%) for accessible digital interface control.
- Missing person identification with real-time facial recognition system using Python, OpenCV, and face_recognition, processes every 2nd frame, applies 0.6 threshold, draws boxes, encodes to JPEG, sends multi-threaded email alerts.
- Violence detection using real-time YOLO-pose estimation and XGBoost, processing every 3rd frame with 0.55 confidence to trigger instant emergency alerts for high-risk incidents.

**Smart Harvest AI** Demo | GitHub
2023

- Plant Disease Detection: Uses CNNs to detect plant diseases from leaf images. The dataset includes 87,000 images of healthy and diseased leaves across 38 classes.
- Crop Recommendation: Applies Random Forest to analyze soil NPK values, weather, and crop types to suggest suitable crops. Uses SVM for crop prediction with 90.01% accuracy.
- Fertilizer Prediction: Uses SVM to recommend fertilizers based on soil health and crop requirements.
- Farm Loan Prediction: Uses Gradient Boosting to assess loan eligibility based on land location, yield estimates, and market trends.

## Technical Skills

- **Languages:** Python,Azure ML, C/C++, SQL, HTML, CSS, JS
- **Machine Learning:** Pandas, NumPy, Scikit-learn, Matplotlib
- **Deep Learning & Computer Vision:** YOLOv8, OpenCV, TensorFlow, PyTorch, Agentic AI (LangChain, Pinecone)
- **Tools:** Docker, GenAI, VS Code, PyCharm, Power BI, Excel, Roboflow, LLaMA, Tableau, CI/CD for ML, Git / GitHub ,Flask

## Achievements

- Magnitude1.0 National Hackathon Winner (Team Leader)
- Smart India Hackathon National Level Finalist – Top 6 of 500+ teams
- BOROSA – BOSCH Road Safety Hackathon 2025 Finalist – Top 18 of 320+ teams
- Judge & Core Organizer, IndoVate Sprint 2025 Hackathon at MKSSS Cummins College of Engineering for Women
- 2× ProStart PreSIH Winner (Software) & 7× Hackathon Finalist