ATHARVA KANAWADE

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LinkedIn | GitHub | Blogger.com | CTF Writeup

SUMMARY

Absolute learner with a strong foundation in **Python**, **data handling**, and **model building**, proven through impactful ML projects. Skilled in turning raw data into deployable AI solutions using modern tools and frameworks. Passionate about **solving real-world challenges** in machine learning and AI.

EDUCATION

Marathwada Mitra Mandal's College of Engineering, Pune. Nov 2022 - Jun 2026
Bachelor of Engineering in Electronics and Telecommunication **(CGPA: 9.02)**

Shramik Junior College, Sangamner. Sep 2020 - Jun 2022
Higher Secondary Certificate **(66.17 %)**

Dr. B.G. Dere English Medium School, Sangamner. Jun 2007 - Jun 2020
Secondary School Certificate **(87.80 %)**

EXPERIENCE

R&D Intern - Encrypta Inc. Dec 2024 - Mar 2025

- Engineered a secure desktop authenticator using **Python**, **Node.js** and **Electron.js** strengthening local authentication.
- Integrated **HTTPS** and WebSocket protocols to enable encrypted real-time data transmission with zero data leaks in testing.
- Implemented multi-factor authentication and secure coding practices, boosting login security by **70%** and reducing attack vectors.

PROJECTS

ARTEMIS (Advance Reactive Threat Elimination and Monitoring Integrated System) [GitHub] Jun 2025

- Built a **Naive Bayes model** for phishing email detection with **90%+ accuracy**.
- Used **Flask** to set up real-time checks and trigger **instant email alerts** when a phishing email was caught.
- Deployed the system on **AWS EC2** so it could run live and handle incoming traffic.
  Tech Stack: Python, scikit-learn, Flask, AWS, EC2, SMTP

Harvest-Health – Crop Monitoring Rover [GitHub] Mar 2025

- Designed a **CNN model** to detect potato leaf health with **90%+ accuracy** despite a small dataset.
- Built a rover with sensors and a camera to collect field data and send it to the **ThingSpeak cloud**.
- Integrated **Twilio** to deliver updates directly to farmers' phones, making ML a key part of the system.
  Tech Stack: Python, TensorFlow/Keras, OpenCV, ThingSpeak, Twilio, Embedded Systems

Automotive Part Quality Classifier (Confidential Client) Jun 2025

- Created a part inspection model using **MobileNetV2** with **transfer learning** to classify parts as OK or NOT-OK.
- Achieved **reliable detection** across **multiple part variants** and production conditions.
- Packaged the workflow into a simple **.exe application** for in-house use on the factory floor.
  Tech Stack: Python, TensorFlow/Keras, MobileNetV2, PyInstaller, OpenCV

SKILLS

- **Programming & Scripting:** Python, NumPy, Pandas, scikit-learn, TensorFlow, Keras, OpenCV
- **Machine Learning & Models:** Naive Bayes, CNNs, Random Forest, XGBoost, Transfer Learning (MobileNetV2, YOLOv5/YOLOv8)
- **Cloud & Deployment:** AWS EC2, ThingSpeak, Flask, PyInstaller, Docker (basic)
- **Data Handling & Tools:** MySQL, Jupyter Notebook, Git, Linux
- **Other Tech for ML Solutions:** Embedded Systems (ESP32, sensors), Twilio API

ACHIEVEMENTS

- **Winner** in Capture the Flag (CTF) at NigVanta'25
- **Winners** at Innovators Challenge 2k24: 24 Hour Hackathon