

SHAIK ARAFATH

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[GitHub](#) | [Linkedin](#)

OBJECTIVE

I am a proactive and impact-focused Computer Science student with a strong foundation in edge AI, full-stack development, and decentralized technologies. I am seeking to leverage my skills in Python, Solidity, and computer vision to contribute to innovative software and hardware-integrated projects. I am passionate about building scalable, privacy-preserving systems and applying AI for real-world problem solving.

EDUCATION

Uttaranchal University | Dehradun, Uttarakhand

Bachelor of Technology, Computer Science & Engineering

Expected Graduation: May 2027

CGPA: 7.3/10.0

SKILLS

Languages: Python, HTML, CSS, JavaScript, Solidity

Core Concepts: Data Structures & Algorithms, Object Detection, Edge AI, Web3 Identity, Predictive Analytics

Developer Tools: Git, Docker, Raspberry Pi, VS Code, Unix/Linux Environment, GitHub Actions

Frameworks & Libraries: Flask, React.js, Next.js, OpenCV, YOLOv5, XGBoost, Prophet, Ethers.js

Databases: PostgreSQL, IPFS (decentralized), Arweave (permanent storage)

PROJECTS

Vanar Rakshak | AI-Powered Monkey Deterrent System | [GitHub](#)

Tech Stack: Python, PyTorch, YOLOv8, OpenCV, Flask, Raspberry Pi

- Developed a real-time computer vision module using Python, OpenCV, and a fine-tuned YOLOv8 model to achieve >90% accuracy in monkey detection on edge hardware (Raspberry Pi).
- Engineered an automated deterrence system that triggers an audio response (e.g., leopard's roar) within 2 seconds of a confirmed detection, providing a non-harmful solution to human-wildlife conflict.
- Constructed a lightweight web dashboard using Flask to stream the live camera feed with real-time bounding boxes and display system status (e.g., "Monitoring", "Monkey Detected!").

Aether | Decentralized Personal Data & Legacy Archive | [GitHub](#)

Tech Stack: Next.js, Ethers.js, Solidity, Node.js, IPFS, Arweave, Polygon

- Implemented a secure, passwordless authentication system using Ethers.js to allow users to sign in and manage their identity via their Web3 wallet (e.g., MetaMask), enhancing user sovereignty.
- Architected a trustless data pipeline for client-side encryption of files, permanent storage on Arweave via IPFS, and immutable proof-of-ownership records on the Polygon blockchain.
- Designed and built a responsive user interface with Next.js, featuring an interactive timeline to enable users to easily browse and manage their chronologically ordered digital archive.

The Sentinel AI | Predictive Analytics Platform for Food Waste Reduction | [GitHub](#)

Tech Stack: Python, Django, React, PostgreSQL, XGBoost, Prophet, Pandas, Docker, AWS

- Developed a robust data ingestion pipeline in Python to process historical sales data from CSVs and integrate external factors like weather forecasts and local events via REST APIs.
- Engineered a machine learning core using XGBoost and Prophet to generate accurate, item-level demand forecasts, with an automated weekly re-training cycle to adapt to new sales trends.
- Built a full-stack dashboard using Django and React to present actionable insights to kitchen managers, including daily prep lists, prediction rationales, and reports on estimated cost savings.