Farid Ahmad Shaikh

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Summary

Innovative AI/ML Software Developer specializing in computer vision, big data analytics, and full-stack development. Skilled in designing and deploying YOLO and TensorFlow Lite pipelines, integrating AWS, and using MySQL for large-scale data management to deliver secure, scalable, real-time surveillance and analytics solutions with expertise in Python, R, and advanced data visualization techniques, predictive modeling, statistical analysis, and machine learning decision-making.

Education

Master of Technology [Electronics Engineering (Specialization in Edge-based AI)] July 2025
K. J. Somaiya College Of Engineering (CGPI: 9.34/10.0) *Mumbai, Maharashtra*

Experience

Smart I Systems Pvt Ltd July 2023 - Present
Software Developer (Intern → Full-time)
Develop and deploy AI/ML solutions (YOLO, TFLite) for detection systems, big data analytics, and web applications, integrating AWS S3 and Linux-based cryptographic operations. Began as an intern, gaining hands-on experience in custom object model training and MariaDB data handling before transitioning to full-time. Previously completed internships at TATA (Data Analytics – created data visualizations for business insights) and Two Waits Technologies (Python Scholar – applied real-world Python programming concepts).

Projects

Smart AI-Based Surveillance and Safety Monitoring System

AI-powered system using Python, OpenCV, TensorFlow Lite, YOLOv5, and NXP i.MX8M Mini to detect masks, helmets, persons, camera masking, crowds, and loitering. Integrated SQLite, Flask, RTSP, and Linux for real-time monitoring and analytics.

HMI For E-Surveillance IoT Panel In Smart Multi-location Facility Management System

Developed an HMI integrating IP camera visualization via GStreamer pipelines and real-time sensor data graphs. Utilized Python (Pandas, Matplotlib, PySide6, QtPy), R, MySQL, AWS, and Linux to enable centralized monitoring, analytics, and control across multiple sites, enhancing operational efficiency and decision-making in smart facility management environments.

Anti Riot Drone with Tear Gas (Crowd Detection)

This innovative system is designed to assist law enforcement and security personnel in managing large-scale protests and riots. Equipped with advanced crowd detection technology, the drone autonomously monitors and identifies dense gatherings of people. Once a potential threat or illegal assembly is detected, the drone is capable of deploying tear gas canisters to disperse the crowd in a controlled and strategic manner, Technologies used: PIR sensor, YOLOv5 model, real-time processing.

Technical Skills

Languages: Python, Java, Javascript, R language
Web Development: Html, CSS, Flask-Python
Databases: SQL (MariaDB), SQLite / MySQL
Concepts: Artificial Intelligence, Machine Learning, Neural Networks, API, REST APIs, Computer Vision, Edge AI
Developer Tools: Git, Github, Docker, Kaggel ,Hugging Face, PuTTY, VScode, Google Colab, Postman, Jupyter Notebook
Operating Systems: Linux (Ubuntu, Raspberry Pi OS), Windows

Co-curricular & Achievements

- Earned M.Tech sponsorship from Smart-I Systems. 2023-2025
- Published research in reputed Scopus journal. 2025
- Secured 1,45,000 rupees funding for Anti-Riot Drone 2023
- Managed security and operations for major fests and national sports event. 2022