

# Farid Ahmad Shaikh

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## Summary

- Passionate AI/ML Developer specializing in computer vision, big data analytics, and scalable full-stack development.
- Skilled in Python, R, SQL/MySQL for advanced data analysis, visualization, and large-scale database management systems.
- Experienced in designing and deploying YOLO and TensorFlow Lite pipelines for real-time intelligent vision applications.
- Proficient in predictive modeling, statistical analysis, and machine learning algorithms for data-driven decision-making.
- Adept at integrating AWS services, automating workflows, and delivering scalable, very secure analytics solutions.

## Education

**Master of Technology [Electronics Engineering (Specialization in Edge-based AI)]**

K. J. Somaiya College Of Engineering (CGPI: 9.34/10.0)

July 2025

Mumbai, Maharashtra

## Experience

**Smart I Systems Pvt Ltd**

July 2023 - Present

*Software Developer (Intern → Full-time)*

- Developed and deployed AI/ML solutions using YOLO and TensorFlow Lite for advanced real-time detection systems.
- Conducted big data analytics and built responsive web applications integrating AWS S3 for secure data storage.
- Gained hands-on experience in custom object model training and MariaDB handling during initial internship period.
- Completed TATA internship in data analytics, creating data visualizations for strategic business decision-making
- Served as Python Scholar at Two Waits Technologies, applying real-world Python concepts to practical projects.

## Projects

**Smart AI-Based Surveillance and Safety Monitoring System**

- Designed edge-level AI surveillance using Python, OpenCV, TensorFlow Lite, YOLOv5, and NXP i.MX8M Mini.
- Developed detection for face mask, helmet, crowd, loitering, and camera masking under strict resource limitations.
- Integrated SQLite database, Flask backend, and RTSP streaming for real-time AI event monitoring and analytics.
- Optimized models for edge deployment, ensuring low latency and reliable performance despite hardware constraints.

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

- Developed HMI integrating IP camera visualization using GStreamer pipelines and real-time sensor data graph rendering.
- Utilized Python, Matplotlib, PySide6, QtPy, and R for advanced analytics and interactive visualization capabilities.
- Implemented MySQL, AWS, and Linux integration to support centralized monitoring and control multiple locations.

**Anti Riot Drone with Tear Gas (Crowd Detection)**

- Designed autonomous drone system for law enforcement crowd monitoring and riot management using AI detection.
- Implemented MobileNet model for accurate real-time crowd detection and density analysis in dynamic environments.
- Integrated PIR sensors to enhance detection reliability and ensure rapid response during critical security events.
- Enabled automated tear gas deployment for controlled, targeted crowd dispersal with minimal collateral impact.

## 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
- Directed flagship national-level sports event. 2022
- Led security operations at major college fests. 2022