

# ATHARVA KOLHE

## COMPUTER ENGINEER

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### SUMMARY

Practical engineering student with hands-on experience in IoT systems, drones and real-world software projects through hackathons, technical competitions, and freelance work. Focused on building reliable and efficient technical solutions.

### SKILLS

**Programming:** Python, C (Basic), C++, Java

**Embedded & IoT:** ESP32, Arduino, Sensor Interfacing

**Drone Systems:** MAVLink, ArduPilot, PX4, Mission Planning, Waypoint Automation

**AI & Computer Vision:** OpenCV, Image Processing, Classification Algorithms (Basic)

**Software Development:** Flask, Tkinter, Fast API, Desktop & Web Applications

**Databases:** SQLite, MySQL (Basic)

**Systems & Tools:** Linux (Raspberry Pi), Git/GitHub, VS Code, Debugging, Deployment

### PROFESSIONAL EXPERIENCE

#### Freelance Software Developer | Local Real Estate firm

Nov 2024 - Jan 2025

- Designed and developed a custom software system to manage rental properties, tenants, payments, and maintenance records.
- Implemented expense tracking, rent collection monitoring, and monthly reporting features.
- Automated manual record-keeping, reducing operational errors and improving efficiency.
- Technologies: Python, Tkinter, SQLite

#### E-Commerce Website | KK Clothing

Jun 2025 - Present

- Built an online platform for product listing, customer orders, and brand promotion.
- Developed an admin dashboard for managing inventory, orders, and payments.
- Technologies: HTML, CSS, JavaScript

### PROJECTS

#### Development of Integrated Track Monitoring System

Dec 2025

Smart India Hackathon 2025

- Developed a system for real-time monitoring of track conditions using sensors and automated alerts.
- Implemented data processing and reporting for early fault detection.

#### On-Device AI Image Generation Tool -Qualcomm

Oct 2025

Megathon 2025 -IIIT Hyderabad

- Developed an Android application for local AI-based image generation using device NPU acceleration.
- Optimized models for offline inference and low-latency performance.

## Autonomous Drone Navigation & Payload Delivery

Feb 2026

SAE.ISS ADDC 2026

- Built a drone system for waypoint navigation, vision-based landing and Payload delivery using MAVLink.
- Integrated onboard processing(Rpi) for autonomous mission control.

## IoT-Based Dustbin System

Aug 2024 - April 2025

SE mini project / Vigyantram 2019

- Designed an automated dustbin using ultrasonic sensors and controller-based actuation.
- Implemented real-time status display and usage monitoring.

## Cloud-Based Notes Sharing Platform

Aug 2025 - April 2026

TE mini project

- Developed a web platform for uploading, storing, and sharing academic notes.
- Integrated cloud storage and access control features.

## Public Washroom Management System

Mar 2021

MGS Thinker Fest 2021

- Developed an automated system to detect odour levels and trigger self-cleaning of urinals, variable speed exhaust control.
- Implemented alert system for timely maintenance.

## Smart Home Automation System

Nov 2019

Atal Tinkering lab fest

- Developed an automated home system with smart lighting, appliance control, and remote monitoring features.
- Integrated security alerts and accessibility-focused controls for enhanced safety and user convenience.

## Project Drishti - Assistive Navigation suit for Visually Impaired

FEB 2019

CBSE Science Fest

- Developed a wearable navigation system using LiDAR sensors to detect obstacles in real time.
- Integrated vibration-based feedback to guide users safely during movement.

## EDUCATION

### Bachelor of Engineering (Computer Science & Engineering)

Sep 2019 - Sep 2023

Rajiv Gandhi Institute of Technology- Mumbai University

- Relevant Coursework: Data Structures, Operating Systems, Computer Networks, Internet Programming, IoT.

## ADDITIONAL INFORMATION

- **Languages:** English, Hindi, Marathi.
- **Certifications:** Oracle Cloud Infrastructure 2025 Certified AI Foundations Associate(Oct 2025, Oracle Java Programmer Certification(2025).
- **Awards/Activities:** Smart Indian Hackathon(2025) Winner, Vigyantram -IIT Mumbai(2019) Winner, Megathon -IIIT Hyderabad(2025) Runners up, SAE.ISS ADDC Challenge(2026) Winner Design Report, MGS Thinker Fest(2021) Runners up.