

EDUCATION

• VIT Bhopal University

B.Tech — Computer Science and Engineering (CGPA 8.78/10)

2022–2026

SELECTED PROJECTS

• CityPulse – Smart Civic Issue Reporting & AI-Based Verification System

Kotlin • Firebase • Google Maps API • CameraX • Geocoder • YOLOv8 • YOLO11 • REST API

2025

- Developed a smart city Android application that allows citizens to report civic issues such as garbage, road damage, and public hazards with image and video evidence.
- Integrated 4 deep learning object detection models (2× YOLOv8 and 2× YOLO11) to automatically verify and validate user-uploaded images, ensuring authenticity and relevance of reported issues.
- Implemented an AI-based verification pipeline where predictions from multiple YOLO models are cross-checked to reduce false complaints and improve detection reliability.
- Used CameraX and Google Maps API to capture geo-tagged media and accurately map complaints using Geocoder.
- Integrated Firebase for authentication, real-time data storage, and complaint status tracking between users and municipal authorities.

• Lakshaya AI – Stream Recommendation Android App

2025

Kotlin • Flask • scikit-learn • pandas • NumPy • joblib • Firebase • REST API

- Developed an AI-based Android application that recommends the most suitable academic stream for students using 20 key academic and aptitude parameters.
- Implemented a Flask REST API backend with a Voting Classifier ensemble (scikit-learn) for real-time prediction and top-3 confidence scoring.
- Integrated the ML model with a Kotlin frontend and Firebase for smooth user interaction and data flow.
- Achieved fast and accurate recommendations using pandas, NumPy, and joblib for data processing and model serialization.

• Smart Canteen: QR-Enabled Food Ordering System

2024

Kotlin • Firebase • ZXing • Razorpay

- Developed a comprehensive Android food ordering system using Kotlin, featuring separate applications for users and administrators to streamline the canteen process.
- Integrated the Razorpay payment gateway to enable secure and seamless in-app payments, supporting various methods like UPI, credit/debit cards, and net banking.
- Engineered a secure, contactless order verification system by integrating the ZXing library to generate a unique QR code for each paid order.
- Leveraged the Firebase Suite (Firestore, Authentication, Cloud Functions, FCM) to manage real-time data, user authentication, and push notifications for order status updates.

TECHNICAL SKILLS

- Languages:** Proficient in **Java, Kotlin, SQL**
- Frameworks & Libraries:** Scikit-learn, Pandas, NumPy, joblib, YOLOv8, YOLO11, CameraX, Google Maps API, Geocoder, ZXing, Flask (REST API), Voting Classifier (Ensemble Learning), Razorpay API
- Tools:** Android Studio, Git & Github, Jupyter Notebook, OpenCV
- Databases & Cloud:** Firebase, Firestore, Google Maps Platform, Firebase Cloud Messaging

CERTIFICATIONS

- Udemy - Android 16 Mobile Development(Java & Kotlin)**
- Google - The Bits and Bytes of Computer Networking**
- IBM - Generative AI**
- NPTEL - Cloud Computing (Silver Badge & Top 5%)**
- NPTEL - Marketing Analytics(Silver Badge & Top 2%)**