

Bishal Das

bishalbishal6659@gmail.com — +91-9366970934
GitHub: github.com/bishal1010 — LinkedIn: linkedin.com/in/bishaldas

Professional Summary

Results-driven Android and AI Developer with proven experience in building scalable mobile apps, machine learning solutions, and IoT-based systems. Adept in modern Android development (Jetpack Compose, MVVM), machine learning (TensorFlow, OpenCV), and microcontroller integration (Arduino, ESP32). Passionate about building innovative, user-centric applications and contributing to impactful technology projects.

Technical Skills

- **Programming Languages:** Kotlin, Java, Python, C++, XML
- **Mobile Development:** Android SDK, Jetpack Compose, Firebase, Retrofit, Room Database, Material Design
- **Machine Learning/AI:** TensorFlow, OpenCV, Scikit-learn, Pandas, NumPy, Matplotlib
- **IoT Embedded Systems:** Arduino, ESP32, Raspberry Pi, MQTT, Sensors, Actuators
- **Development Tools:** Android Studio, Visual Studio Code, Git, GitHub, Postman
- **Other Technologies:** RESTful APIs, MVVM Architecture, UI/UX Design, Agile/Scrum, JSON, XML

Experience

Android Developer Intern

Mar 2024 – Jul 2024

- Designed and implemented a real-time chat and communication app using kotlin, Firebase Authentication, Cloud Firestore, and Firebase Storage.
- Collaborated with a remote development team using Git and GitHub for version control and agile tracking.
- Ensured app performance optimization, clean UI/UX, and real-time data sync using Firebase listeners.

IoT Developer (Freelance)

2023 – Present

- Engineered smart irrigation and home automation systems using Arduino/ESP32, moisture sensors, relays, and mobile control via MQTT.
- Designed custom PCBs and circuits and programmed microcontrollers using embedded C++.
- Integrated IoT solutions with mobile apps for real-time monitoring and remote actuation.

Education

ICFAI University, Tripura

2023 – Present

Bachelor of Technology (B.Tech), Computer Science and Engineering

Relevant Coursework: Data Structures, Machine Learning, Operating Systems

Tripura Institute of Technology (TIT)

2020 – 2023

Diploma in Mechanical Engineering

Projects

Smart Irrigation System (IoT)

- Built a fully automated irrigation system using soil moisture sensors, ESP32, and MQTT-based mobile app control.

Home Price Prediction Model (Machine Learning)

- Developed a regression model using Scikit-learn to predict housing prices from parameters like area, location, and number of rooms.

Real-Time Face Detection App (Android + OpenCV)

- Implemented real-time face detection on Android using OpenCV and device camera input for facial recognition use cases.

College Attendance Tracker App (Android)

- Designed a native Android app using Room DB to manage attendance records with CSV export and date-wise filtering.

Smart Waste Management System (IoT)

- Built a sensor-based solution to detect garbage bin levels and notify sanitation services for route optimization.

Smart Parking Assistant (IoT)

- Created a system to detect available parking slots and guide users using a mobile application and ultrasonic sensors.

Smart Home Automation (IoT)

- Developed a WiFi-based home automation system for controlling lights, fans, and monitoring temperature/humidity via mobile app.

Achievements

- Published 5+ Android apps demonstrating modern architecture, REST integration, and cloud features.
- Delivered 6+ IoT projects with practical applications in agriculture, automation, and smart cities.
- Maintains a well-documented GitHub portfolio with open-source projects and consistent contributions.

Languages

- English – Professional Working Proficiency
- Hindi – Native Speaker
- Bengali – Native Speaker