

Amaan Dhanerawala

Android Mobile Engineer & Robotics Integrator | Real-Time Hardware Systems

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Summary

Android and Flutter engineer with 3+ years building high-performance, hardware-integrated mobile systems. I bridge mobile apps with robots, IoT, and embedded devices over WebSockets, MQTT, and Serial/UART, with production deployments running live across Dubai and Abu Dhabi.

Robotics integrator across the ROS and ROS 2 stack: mobile control planes for autonomous robots, WebRTC telemetry pipelines, and low-latency operator interfaces engineered for reliability in dynamic, real-world environments.

Practise AI-assisted development end to end, using structured prompting and AI coding agents to design, build, review, and ship production applications at high velocity.

Experience

Kody Technolab Limited

Mobile Engineer

Ahmedabad, India

12/2022 - Present

- Built the Android and Flutter mobile control plane for **Dasher**, an autonomous restaurant delivery robot: ROS SDK integration, a live telemetry dashboard, and low-latency operator control.
- Developed **Odigo**, an advertising robot platform, with RSA/AES-secured device communication; showcased live at GITEX Global, Dubai.
- Integrated ROS and ROS 2 nodes with mobile operator apps for real-time robot monitoring, navigation, and control.
- Implemented WebRTC video streaming and real-time telemetry pipelines for remote monitoring of connected devices.
- Bridged mobile apps to hardware over WebSockets, MQTT, and Serial/UART across robotics, IoT, and embedded deployments.
- Applied AI-assisted development (AI coding agents and structured prompting) to ship 15+ production apps and accelerate team delivery.
- Led a team of 3 developers, owning delivery, architecture, and code quality.

Robotics Field Deployment (UAE)

On-site Integration & Live Operations

Dubai / Abu Dhabi

2023 - Present

- Deployed and operated mobile-controlled robotics platforms across BurJuman Mall, The Outlet Mall, and BAPS Hindu Mandir, Abu Dhabi.
- Ran live demos at GITEX Global with e& and Falcon Tech Robotics, handling high user interaction.
- Performed real-time debugging of mobile-to-hardware communication, minimising downtime during live operations.
- Tuned system behaviour for low-latency communication and reliability in fast-changing environments.

Praxware Technologies

Intern & Professor

Ahmedabad, India

12/2020 - 05/2022

- Conducted technical workshops on C, C++, Java, and Python.
- Built Android and Flutter demo applications with REST API and SQL database integration.
- Guided students on application architecture and backend integration fundamentals.

Myriad Solutionz

Data Manager

Ahmedabad, India

03/2019 - 05/2019

- Managed data for 100+ clients including sensitive card information, ensuring accuracy and security.
- Processed two months of client data within 4 days under tight deadlines.

Projects

Dasher

ROS, Flutter, WebRTC, WebSocket

Autonomous Delivery Robot

Restaurant delivery robot with a real-time operator control panel, ROS SDK integration, and live telemetry streaming.

Odigo

Android, Kotlin, RSA/AES, Serial/UART

Advertising Robot Platform

Interactive advertising robot with encrypted device communication, deployed and demoed at GITEX Global, Dubai.

Etihad Rail Robot Display

ROS 2, Android, Kotlin

ROS 2 On-Robot Android App

On-robot Android display and audio application integrated with a ROS 2 stack for a service robot in a rail environment.

Skills

Mobile Development Android (Kotlin) · Java · Flutter · iOS

Robotics & Systems ROS · ROS 2 · SDK Integration · Serial/UART · BLE/GATT · IoT Systems

Real-Time Communication WebSockets · Socket.IO · WebRTC · MQTT

AI-Assisted Development Prompt Engineering · AI Coding Agents · Spec-Driven Development · AI-Augmented Code Review · Rapid Prototyping

Architecture MVVM · Clean Architecture · Scalable Mobile Systems

Performance & Systems Low-latency Systems · Real-Time Telemetry · Concurrent Communication

Tools Android Studio · Git · Firebase · IntelliJ · VS Code

Key Achievements

- GITEX Global, Dubai: drove engagement for live robot demos, attracting 300+ attendees.
- Leaders' Dinner, BAPS Hindu Mandir, Abu Dhabi: ensured stable robotics performance during live guest interactions.
- Vibrant Gujarat Global Summit: supported robotics platform deployment, monitoring, and live event operations.

Education

Indus University

Ahmedabad, India

Bachelor of Technology

08/2019 - 05/2023

Bachelor of Computer Engineering.