ROSHAN PATEL

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About

Android application developer with 6 years of experience in building, integrating, testing and supporting applications in mobile and tablet devices. Delivered efficient, scalable, and user-friendly applications that meet client requirements. Strong logical thinking and ability to adapt to new technologies and frameworks.

Work Experience

eInfochips(An Arrow Company) Senior(Digital) Engineer, Android

Ahmedabad, Gujarat August 2023 – Present

- Developed Live/Recording based streaming services using webRTC, signaling using MQTT and WebSocket, multithreading for REST services and data caching.
- Migrated from webRTC based streaming services from media-channel to data-channel and implemented RTSP Live streaming, FMP4 and RTP based playback which overall improved latency. Added customization to the A/V renderers, sample time manipulations for sample buffers to visualize event time and added post processing to the video frames. Cached playback encoded buffers in memory and developed a system that gracefully handles incoming encoded data and user interaction.
- Optimized first frame rendering time to <500 ms. Muxed RTP based encoded frames to MP4.
- Integrated c++ Dewarp image processing library using NDK. Major accomplishment is to achieve 10 fps on a 3k resolution frame. Shared GL textures/resources between two different EGL threads.
- Solved a requirement to capture snapshot from the cached video buffers offscreen by using EGL pbuffer.

TECHNOSTACKS INFOTECH PVT. LTD.

Android Engineer, Flutter

Ahmedabad, Gujarat Sept 2018 – July 2023

- Collaborated with cross-functional teams to design and implement innovative UI/UX features for Android applications, resulting in a 30% increase in user satisfaction.
- Conducted thorough testing and debugging of Android apps, ensuring seamless user experience and adherence to company standards.
- Contributed to the development of new features and enhancements to existing applications, resulting in a 15% increase in overall app performance and a 100% increase in app downloads. Contributed and added new features to the application used by more than 100k+ users.
- Participated in software development individually and in a team, supporting a wide range of devices and operating system versions.
- Lead a small team of developers and trained 4 trainees, conducted more than 20 technical interviews to hire new talent

Camera Surveillance Enterprise application

Streaming based android application using webRTC, MQTT, web-socket, exoplayer. Display real time events detected by the camera. Configure and handle all camera settings like resolution, flip, rotation, etc.

QuickScan

Document detection app used by more than 100k+ users. Find document edges and edit images in real time efficiently.

SmartPro

Provides kiosk solutions to enhance security by restricting access to other mobile features/applications. NDK implementation increased processing speed by 5%.

DeliverEnd

Collaborated on a Delivery as a Service (DAAS) application, leveraging Jetpack Compose for building a rich

Projects

user interface and integrating with third-party communication services by Twilio.

Hearing Aid Flutter plugin

Designed a Flutter plugin utilizing native SDK for a hearing aid-based device, ensuring compatibility and support for both Android and iOS platforms.

Lief

Collaborated on the development of an app that communicates with a health tracking device. Adapted elegant and materialized UI components, custom views, and advanced animations for enhanced user experiences.

Elotec(Aspect Tool B, Aspect View)

Built utility software for a large organization to edit configurations and read logs of their IoT product, handling firmware upgrades via OTA. More than 1000+ downloads.

Education

AHMEDABAD INSTITUTE OF TECHNOLOGY

Bachelor of Engineering(Information Technology)

Ahmedabad, Gujarat June 2018

Skills & Interests

Programming languages: Java, Kotlin, c++, Dart

Skills: Github actions CI/CD, Rest Services, Sqlite/Room/Realm/ObjectBox, Firebase, GraphQL, Dependency Injection, c++ with Android NDK integration and JNI, IOT integrations(BLE/WIFI/MQTT), Multithreading programming concepts, Coroutines, Arcore, Tensorflow lite, Constraints, Motion layouts and custom UI, Unit testing, Flutter, Jetpack Compose, MVVM, MVP, Agile methodologies, Git, Opengl ES, webRTC, WebSocket, Exoplayer(h264, h265), FFMPEG(AAC audio decoder).

Language: English(Fluent), Hindi(Native)

Awards: Employee of the Year(3 Times), Continous learning(Core values)

Achievements: Less integration time by writing a BLE library for the organization, Reduced first video frame

rendering time, Solved 200+ DSA problems