

HAMZA SHAHID SIDDIQUI

Senior Mobile Engineer & Team Lead | WebRTC Specialist

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[Github](#) | [LinkedIn](#) | [Stackoverflow](#)

Senior Flutter Developer (6+ years) specializing in real-time communication, streaming, and IoT. Proven track record of building scalable apps, reducing crashes by 80%, and delivering 20+ high-performance mobile applications. Skilled in WebRTC, Agora, HLS, and architectures (Bloc, MVVM).

SKILLS

- Frameworks & Languages: Flutter, Dart, Bloc, GetX, MVVM
- Real-time & Communication: WebRTC, Agora SDK, VoIP, Socket.IO
- Streaming & Media: HLS, FFmpeg, VLC, WHIP/WHEP
- Tools & Platforms: ONNX, Firebase, Bugfender, iOS/Android SDK, In-App Purchases, Background Services

PROFESSIONAL EXPERIENCE

● Irvine | Senior Flutter Developer (Team Lead)

Oct 2024 – Present | Full Time

- Revamped app architecture by migrating from Provider/GetX with MVC to Bloc with Cubit (MVVM pattern), reducing crash rate from 5% to 1% and improving scalability.
- Re-architected VoIP & streaming: replaced unstable RTSP approach with WebRTC and WHIP/WHEP streaming, optimized socket usage, and resolved ICE candidate failures – reduced call connection time from 6–7s to 1–2s across network types.
- Developed a custom voice control system, replacing Porcupine with an ONNX-based solution and leveraging speech-to-text to achieve real-time response compared to Whisper's 7–8 second delay.
- Built a custom VLC package for Flutter (using official VLC kit for Android & iOS) to support multi-camera systems (Reolink, ONVIF, Ring, Ezviz, in-house doorbell), enabling seamless m3u8 playback across devices.
- Tools & Skills: Flutter, Dart, Bloc (Cubit), WebRTC, ONNX, MVVM, Bugfender, VLC, IoT Sockets

● Star Tech Bazaar | Flutter Consultant

Mar 23 - Nov 24 | Part Time

- Resolved video watermark pixelation issues via FFmpeg customizations and pipeline tweaks for encoding/decoding.
- Implemented dynamic iOS pricing logic to address App Store policy requirements and resolve rejection issues.
- Successfully prepared and deployed app to the Apple App Store.
- Tools: FFmpeg, iOS app submission, Flutter.

● Fourfox | Senior Flutter Developer (Team Lead)

Oct 21 - Sep 24 | Full Time

- Delivered 20+ mobile applications (social media & chat-focused) with features inspired by Instagram, LinkedIn, and OLX.
- Migrated real-time chat infrastructure from Pusher to Socket.IO, reducing system complexity and improving reliability.
- Implemented real-time chat features (online/offline status, last seen, message reply, jump-to-message, offline storage).
- Integrated Agora SDK for VoIP audio/video calling.
- Built social media features including posts, reactions, groups, and events with smooth scrolling and optimized media handling.
- Implemented user mentions with Markdown parsing to enable clickable profile redirects.
- Designed and published a Flutter package for real-time camera filters and effects, fulfilling the requirement of allowing users to preview color filters directly on the live camera feed without capturing a photo
- Tools & Skills: Flutter, Dart, Socket.IO, Agora SDK, Social Media App Development

● Trecsol | Flutter Developer

Jan 21 - Sep 21 | Full Time

- Developed a financial application and a VPN application with subscription-based logic.
- Implemented a native background service to handle VPN Pro mode session expiration after 1 hour.
- Designed a reward-based Pro system offering 1-hour Pro access upon watching 5 ads/videos.

● Codebox Solutions | Flutter Developer

Aug 19 - Dec 20 | Full Time

- Learned Flutter development fundamentals, focusing on UI creation and Firebase integration.
- Built 3 Uber-type applications, implementing user authentication, maps, and routing features.
- Resolved complex navigation challenges by researching and integrating a route management package.

PROJECTS

- Star Bazaar (Play Store)
- Star Bazaar (App Store)
- Speed VPN Secure & Fast Access (Play Store)
- IRVINEi OVAL: AI Doorbell Hub (App Store)
- IRVINEi OVAL: AI Doorbell Hub (Play Store)

EDUCATION

BSCS (PAF-KIET)
2016 - 2020