

Rahul Pahuja

Experienced Staff Software Engineer | Android & iOS Expert | Proven Leader in Mobile App Development, Cyber Security, Banking, IoT & Video Streaming

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Summary

Currently working as a **Staff Software Engineer at CyberArk in Hyderabad, India**, with **10 years and 2 months of overall experience**, including **9 years and 4 months in mobile app development**. Specializing in **Android (6+ years) and iOS (4+ years)**, I have a strong track record of delivering high-quality, complex mobile applications across diverse domains such as **video streaming, banking, IoT, and business intelligence**. A proven leader with expertise in building scalable, secure, and user-centric mobile solutions..

Tech Skills

- **Mobile Development:** Java, Kotlin, Android Studio, Jetpack Compose, ExoPlayer, Swift, Xcode, UIKit, SwiftUI, Alamofire, Firebase, Bright cove Media Player, Knowledge of React Native and Flutter, REST API Integration, Coroutines
 - **Architectural Patterns:** MVVM, MVC, MVI
 - **Backend:** Java, Kotlin, Node.js, Python, Spring Boot, Express.js, Retrofit, REST APIs, PostgreSQL, MySQL
 - **CI/CD & Version Control:** Git, Bitbucket, GitHub, TeamCity, Jenkins, CircleCI, Nexus
 - **Testing:** JUnit, Espresso, XCTest, Firebase Crashlytics, Sentry
 - **Design & UX:** Figma, Adobe XD, Jetpack Compose, UIKit, SwiftUI
 - **Analytics:** Firebase Analytics, Conviva, ExoPlayer, MPChart, Retrofit
 - **Project Management:** Jira, Confluence, Teams, Slack
 - **Other:** BLE, RSSI, TensorFlow Lite, CNNs, Wipro Auto Insights, Wipro Smart-i-connect
 - **Systems Design, Code Review, Architecture Design, Architecture Review, and UML**
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Experience

Staff Software Engineer| Cyberark (November 2024 – Present) | Hyderabad, India

App store URL : <https://apps.apple.com/us/app/cyberark-identity/id499910663>

Play store URL: https://play.google.com/store/apps/details?id=com.centrifymdm.samsung&hl=en_IN

Responsibilities:

- **Leadership in Design Discussions:** Actively led and contributed to design discussions focused on **Secured Data Storage**, showcasing advanced problem-solving and technical direction capabilities.
- **Proof of Concept (PoC) Implementations:** Successfully implemented PoCs for **TEESDK ,DataStore, Caching SDK** to enhance application security.
- **TeeSDK Integration:** Developed a robust **TeeSDK for Android** to safeguard data, demonstrating deep expertise in Android development.

Technologies Used:

- **Mobile Development:** Android (Java, Kotlin), iOS (Swift), Kotlin Coroutines, Android Jetpack Compose, Datastore, Keystore
- **Backend:** RESTful APIs, C#.NET
- **Version Control:** Git
- **CI/CD:** Jenkins
- **Tools:** Jira, Figma, App Store Connect
- **Testing:** JUnit, Mockito, Roboelectric
- **Other:** Firebase, JSON, REST APIs
- **Security:** STRIDE Analysis using Threat Dragon.
- **Systems Design, Code Review, Architecture Design, Architecture Review, and UML**

Technical Lead | Coforge (March 6, 2024 – November 2024) | Bengaluru, India

Client: Commonwealth Bank of Australia (Bankwest)

App store URL : <https://apps.apple.com/au/app/bankwest/id419259235>

Play store URL: https://play.google.com/store/apps/details?id=au.com.bankwest.mobile&hl=en_IN&pli=1

Responsibilities:

- Led the technical team for **Android, iOS, and backend** development, focusing on the **Bankwest Digital Banking** application.
- Oversaw the **Simplified Self-Service** feature, ensuring seamless functionality and user experience on both Android and iOS platforms.
- Worked within two key squads: **Self Service First** and **Money in the Bank**.
 - **Self Service First**: Enabled code coverage for password reset monitoring, revamped the "Going Overseas" and "Notify" screens, and removed a toggle for a feature.
 - **Money in the Bank**: Added support for currency conversion from **AUD** to other currencies, enhancing the app's functionality for international transactions.
- Led collaboration with **cross-functional teams** (UX/UI, QA, backend developers, product managers) to deliver a unified solution.
- Managed **CI/CD pipelines** using **TeamCity** and **Bitbucket** to ensure smooth builds and releases.
- Spearheaded user-driven design decisions, gathering feedback and iterating on prototypes to improve **user experience (UX)**.
- Ensured code quality by maintaining high-quality codebases using **Android (Java & Kotlin)** and **iOS (Swift)**.
- Worked closely with stakeholders from **CBA and Bankwest** to align technical and business goals, ensuring timely delivery of features as per business requirements.

Technologies Used:

- **Mobile Development**: Android (Java, Kotlin), iOS (Swift), Kotlin Coroutines, Android Jetpack, Mockito
- **Backend**: RESTful APIs, C#.NET
- **Version Control**: Bitbucket
- **CI/CD**: TeamCity, Snyk,
- **Tools**: Jira, Figma, App Store Connect
- **Other**: Firebase, JSON, REST APIs, Volley, TDD
- **Systems Design, Code Review, Architecture Design, Architecture Review, and UML**

Impact:

- Contributed to the **Self Service** and **Money in the Bank** squads, playing a crucial role in enhancing the **Bankwest Digital Banking app** across **Android** and **iOS**.
- Successfully enabled **code coverage** for **password reset monitoring** and revamped key screens in the **Self Service** module, improving app usability and security.
- Delivered new features such as **currency conversion** and optimized self-service functionalities, contributing to an improved **user experience** and streamlining customer interactions with the bank.
- Coforge's collaborative and client-centric environment allowed for technological innovations that addressed the challenges of the **financial sector** and delivered impactful solutions for Commonwealth Bank.

Senior Engineer | Conviva (May 2, 2022 – September 26, 2023) | Bengaluru, India

Conviva is a leader in video streaming analytics, specializing in providing real-time metrics for media players. During my time at Conviva, I played a key role in developing, testing, and maintaining the Android SDK for video streaming analytics, integrating it with ExoPlayer, and resolving high-priority customer escalations.

Key Contributions:

- **ExoPlayer Compatibility:**
Streamlined the integration of ExoPlayer with Conviva's Core and Module SDKs to improve performance and metric collection.
 - **Core SDK:** Direct integration into apps for gathering streaming metrics.
 - **Module SDK:** Interacts with Core SDK and app, automatically collecting metrics via ExoPlayer and forwarding them through the Core SDK.
 - Developed a compatibility table to help clients identify the optimal combination of Core SDK, Module SDK, and ExoPlayer versions.
 - Ensured smooth compatibility through extensive testing and integration.
 - Supported new player version releases to maintain compatibility and performance with ExoPlayer updates.
- **Sustenance Activities:**
Added Support for Android 13 and 14, managing the release of private and public builds using GitHub, CircleCI, Jenkins, JFrog, and Nexus to ensure streamlined deployment.
- **Revival of React-Native Based OTT Sample App:**
Resolved React Native Based Sample application for enabling testing capabilities for the core sdk on React native Platform
- **Customer Escalations (CE):**
Resolved high-priority customer escalations involving integration, configuration, and SDK behavior issues. Key resolutions included troubleshooting state management and state reporting issues for major clients.
- **SDK Versions:**
Defined and maintained SDK version compatibility, ensuring smooth integrations for Conviva's analytics with various media players, including ExoPlayer.
- **Ad Integration (CSAI & SSAI):**
Addressed issues related to Client-Side and Server-Side Ad Insertion (CSAI & SSAI) within the SDK, ensuring accurate ad metric collection and reporting.
- **Build Releases:**
Managed the release process by providing frequent builds to the Quality Engineering (QE) team for testing, covering new feature roadmap and customer escalation cases. Ensured thorough testing of new features, bug fixes, and integrations.
- **Accessibility Compliance:**
Contributed to accessibility efforts by supporting closed captioning and subtitles across 5 platforms. Designed and implemented accessibility solutions for subtitles and closed captioning on all 3 Android players (ExoPlayer, Core SDK, and Module SDK). This design focused on inclusivity, meeting industry standards to improve accessibility for users with hearing impairments.

Impact:

- Enhanced integration processes, reducing compatibility issues and streamlining deployment.
- Improved customer satisfaction by resolving critical escalations related to integration and SDK behavior.
- Contributed to accessibility efforts, ensuring a broader, more inclusive streaming experience for users with hearing impairments.
- Increased product usability by aligning with accessibility standards and enhancing the user experience across platforms.

Senior Software Engineer | Intellicus Technologies (now Kyvos Insights) | 5th December 2019 – 29th April 2022 | Bengaluru, India

Play store URL:: https://play.google.com/store/apps/details?id=com.intellicus.android&hl=en_IN

- **Enhanced Reporting:** Improved **OLAP**, **Adhoc Reports**, and **Smart Data View** on the mobile app, delivering real-time data insights and analytics.
- **Dashboard Development:** Developed unified dashboards combining **OLAP** and **Adhoc reports** for streamlined data visualization.
- **New Chart Types:** Introduced multiple new chart types to enhance mobile app visualization capabilities.
- **Session Management:** Implemented **auto logout** based on web-defined session policies to ensure security compliance.
- **Linked Filters:** Integrated **12 types of linked filters** for dynamic, interlinked data analysis.
- **Kotlin Adoption:** Led **Kotlin** integration for testing, improving maintainability and efficiency in test cases.

- **Build & Release Management:** Managed Android builds, shared via **Firebase App Distribution**, and released to **Google Play Store** post-VP approval.
- **Mentorship & Collaboration:** Mentored junior engineers, collaborated with **Engineering, QA, Product,** and **Backend** teams for seamless product development.
- **Issue Triaging:** Actively participated in **triaging issues** with QA and Product teams to prioritize and resolve critical bugs.
- **Defect Planning:** Improved defect management and planning using **Team Planner** and **Jira**, ensuring streamlined workflows and timely issue resolution.
- **Crash Detection:** Added support for **Firebase Crashlytics** to detect and monitor app crashes in real time, improving app stability.
- **Push Notifications:** Integrated **Firebase Cloud Messaging (FCM)** for delivering push notifications to users, enhancing engagement and communication.

Impact

- **Improved Data Visualization:** Enabled efficient data consumption with enhanced **OLAP, Adhoc Reports,** and unified dashboards, which sped up decision-making for clients.
- **Security & Compliance:** Enhanced app security by implementing **auto logout** based on session policies, reducing potential vulnerabilities.
- **User Experience:** Improved app usability with the addition of **12 linked filters** and new chart types, making it easier for users to interact with and analyze data.
- **Efficiency in Testing:** Led the integration of **Kotlin** for testing, significantly improving test reliability and reducing bug-fixing time.
- **Faster Deployment:** Streamlined build and release management by automating Android app deployment via **Firebase Distribution** and **Play Store**, ensuring quicker delivery of updates.
- **Cross-Functional Collaboration:** Fostered teamwork across **Engineering, QA, Product,** and **Backend** teams, contributing to on-time product delivery and higher quality.
- **Optimized Issue Resolution:** Improved the speed and efficiency of **issue triaging** with the QA and Product teams, ensuring quicker bug fixes and product stability.
- **Defect Management:** Enhanced defect management using **Jira** and **Team Planner**, leading to quicker issue resolution and a higher quality product.
- **App Reliability:** Increased app stability by integrating **Firebase Crashlytics**, proactively monitoring and fixing app crashes.
- **Increased User Engagement:** Integrated **Firebase Notifications**, boosting user engagement through real-time communication and enhancing app retention.

Tools & Technologies:

- **Android Studio**
- **Intellicus 19.x, 20.x, 21.x, 22.x**
- **Java, Kotlin**
- **Firebase Crashlytics, Firebase Notifications, Firebase Distribution**
- **Kotlin Junit**
- **Systems Design, Code Review, Architecture Design, Architecture Review, FDD Design**

Senior Software Engineer – Smart Cities Business Unit (DAAI)

Wipro Limited (April 21, 2017 – December 3, 2019 | **Bengaluru, India**)

App store URL: **Track and Trace** : <https://apps.apple.com/us/app/lubricant-trackandtrace/id1534588269>

Joined the **Smart Cities Business Unit**, contributing to the **DAAI (Data Analytics and AI)** division. Focused on projects for the **GIS-CIS (Geographic Information Systems – Customer Information Systems)** teams and developed several key mobile applications.

- **Feedback Management Solution:** Developed a real-time feedback capture system for the Center of Excellence (CoE) using **Appery.io**, providing actionable insights from visiting companies.
- **TikTrak (Ticketing Tool):** Built a ticketing system for **ELCITA** to manage work requests, implemented on iOS using **Xcode, Objective-C, Swift,** and **Alamofire**, streamlining task workflows and improving productivity and transparency.

- **Citizen Services Application:** Developed an app to improve citizens' quality of life in **Electronic City**, integrating services like ATM locations, hospitals, Yulu bike booking, and complaints handling, with an intuitive user interface.
- **Meeting Room Management App:** Designed for **Wipro Bengaluru campuses**, using **Swift** for the iOS app, **Java & Spring Boot** for backend APIs, and **PostgreSQL** for database management. Integrated sensor-based infrastructure for real-time room availability and booking, optimizing room utilization.
- **Smart Home Solution:** Developed a platform for home security and automation, leveraging decision trees and machine learning to create a chatbot for efficient damage repair bookings. Focused on enhancing operational efficiency for insurance companies.
- **Bluetooth Proximity Application:** Created an app using **RSSI indicators** to detect nearby Bluetooth devices in stores and trigger personalized offers, enhancing customer engagement and sales.
- **Sensor Data Processing App:** Developed a system for processing data from Android devices (accelerometers, gyroscopes, environmental sensors) for the **Smart-i-Connect** platform, enabling predictive maintenance and performance monitoring.
- **Track and Trace Solution for Chevron:** Designed a system to track production metrics for oil pale and bottle production, improving operational efficiency and identifying bottlenecks in the production process.
- **Smart Advertising Use Case:** Developed an AI-powered solution for **CES**, using **TensorFlow Lite** and **Google's ImageNet model** for real-time gender-based targeted advertising, optimizing marketing strategies.

Software Engineer – Wipro Auto Insights (Wipro Horizon Projects)

App store URL: <https://apps.apple.com/us/app/wipro-autoinsights/id1281864911>

Wipro Limited (July 1, 2015 – April 20, 2017 | **Bengaluru, India**)

- Transitioned to **Wipro Auto Insights**, a part of the **Wipro Horizon Projects**, to develop **Android apps** and prototypes for a **first-of-its-class connected car platform**.
- Led the development of **Android applications** using **Java**, **XML**, and **Android SDK** to create innovative solutions for connected vehicles.
- Designed and implemented one of the **first live location-sharing features**—preceding similar functionalities introduced by platforms like WhatsApp—allowing real-time location visibility for enhanced user experience and vehicle tracking.
- Focused on **user experience (UX)** by designing and prototyping app interfaces, conducting **user surveys**, and iterating designs based on feedback to ensure optimal usability and engagement.
- Pioneered app functionality integration with vehicle systems, enabling seamless interaction between mobile devices and connected car platforms.
- Collaborated closely with design teams to integrate **UX designs** into prototypes, refining app functionality based on real-world user feedback.
- Utilized **Android development tools**, **Java**, and **XML** to develop services enabling smooth connectivity and advanced features for connected vehicles.

Software Engineer – Shell Account

Wipro Limited (April 1, 2015 – June 30, 2015) | **Bengaluru, India**

- Transitioned **500 application portfolios** from **IBM** to **Wipro** as part of a cost-cutting initiative, contributing to the successful acquisition of the project.
- Our team was responsible for managing **125 applications**, with direct responsibility for **5 major applications**.
- Led **knowledge transfer (KT)** sessions from **IBM**, ensuring smooth handover of applications, including key artifacts like **documentation**, **code access**, **TFS servers**, and **SMTD documents** for future maintenance.
- Managed the **maintenance and support** for applications built using **C#.NET**, **ASP.NET**, **SQL Server**, **HTML**, **CSS**, **JavaScript**, and **Azure**.
- Collaborated with cross-functional teams to resolve critical issues and ensure the stability and functionality of the transitioned applications.
- Focused on optimizing the performance of legacy systems and implementing required features post-transition, ensuring long-term efficiency.
- Ensured seamless application access and updated documentation for ongoing support and maintenance.

Software Engineer – Shell Account

Wipro Limited (December 5, 2014 – March 31, 2015) | **Bengaluru, India**

- Migrated Shell's **CMO (Current Mode of Operation)** environment to **FMO (Future Mode of Operation)**, utilizing **SSIS** and **SQL Server Management Studio (SSMS)** for seamless data integration and transformation.
 - Managed the migration of development environments from **Visual Studio 2010** to **Visual Studio 2014** and database platforms in **SQL Server**, ensuring compatibility and optimal performance.
 - Identified and resolved a significant bottleneck in the migration process by replacing manual UI-based interface migrations with a custom **C#.NET script**, reducing the time required from hours to seconds.
 - Leveraged **C#.NET**, **JavaScript**, and **XML** to build, optimize, and integrate components supporting the migration process.
 - Designed and executed **SSIS flows** for robust integration testing, validating data accuracy and ensuring workflow consistency.
 - Conducted extensive validation, troubleshooting, and optimization of migration pipelines in collaboration with cross-functional teams.
 - Enhanced process efficiency and addressed technical bottlenecks, contributing to the successful deployment of the FMO environment.
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Education

Master's Degree in Computer Software Engineering (M.Tech)

Birla Institute of Technology and Science (BITS), Pilani

Graduation Year: 2019

Bachelor's Degree in Computer Science (BCA)

School of Computer Science & Information Technology, Devi Ahilya Vishwavidyalaya (DAVV)

Graduation Year: 2014
