VAMSHI NAGAMALLA

Lead Android Application Developer

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Summary

- Lead Android Application Developer with more than 10 years of experience. Experienced and skilled professional with a profound background in various Android-related technologies, including extensive expertise in setting up robust application architectures using MVC, MVP, MVVM.
- Well-versed in utilizing Android Jetpack components to enhance application development, along with proficiency in networking, logging, analytics, CI/CD, and unit testing.
- Experienced in application performance tuning and Gradle build optimization, achieving a notable 15% reduction in overall build duration to expedite development cycles.
- Conducted CPU profiling to identify and address performance bottlenecks, incorporating caching mechanisms to optimize data retrieval and processing, resulting in a more responsive application.
- Excellent problem solving, analytical skills, documentation & presentation or demo skills.
- Experience in RESTFul & SOAP web services, including JSON & XML payloads.
- Proficient in asynchronous programming, employing various methodologies including, but not limited to RxJava and Kotlin Coroutines.
- Good understanding of Object Oriented Programming and architecture patterns like MVC, MVP, MVVM.
- Expertise in developing custom lifecycle-aware components for diverse use cases to seamlessly integrate into the application lifecycle.
- Proficient in dependency injection with Dagger 2, leveraging advanced techniques to enhance code modularity and maintainability within diverse application architectures.
- Proven track record in implementing Paging Library to efficiently manage large datasets.
- Mastery of SQLite and Android Room libraries to implement application databases, showcasing a strong command over implementing efficient data storage solutions.
- Successfully implemented background file uploads utilizing Worker and Work Manager, with concurrent notification updates to keep users informed about the ongoing upload progress. (AWS S3)
- Integrated analytics libraries, including Firebase, Mixpanel, Facebook events to comprehensively track and analyze user interactions, enabling data-driven insights for informed decision-making.
- Integrated various sign-in methodologies, sign-in with Google, Facebook and Apple, also integrated biometric authentication to access the application.
- In-depth understanding of in-app purchases for various subscription models.
- Well-versed in source control systems like Git, GitHub, BitBucket.
- Extensive experience with Jira and Confluence for bug reporting and ticket tracking.
- Skilled in writing unit test cases and categorically organizing them with test suites, leveraging Mockito, Roboelectric, Espresso, Robotium
- Proficiency in Gradle & Gradle Enterprise build systems maintaining different product flavors and build types.
- Successful track record in implementing structured logging using custom mechanisms and Timber for Android.
- Successfully implemented supporting multiple languages using AndroidLocalize plugin and DeepL.
- Integrated several deep links which navigate to multiple levels deep into the application.
- Hands-on experience with LiveData, demonstrating proficiency in leveraging this Android architecture component to build responsive and reactive applications with real-time data updates.
- Proficient at integrating networking technologies like OkHttp3 and Retrofit.

- Experience in implementing various image loading libraries like Picasso, Fresco and scaling the images as per application design rules.
- Successfully implemented custom screens using Jetpack Compose.
- Implemented a custom camera as per the business rules using CameraView library.
- Used Scrcpy and Vysor to demonstrate the features worked on.
- Successfully integrated Exoplayer in playing media files, including supporting playback when the application is in background.
- Proven capabilities in successfully debugging an issue using various techniques but not limited to
  - Logging
  - Android Studio Debugger
  - Inspecting UI with Layout Inspector
  - Debugging UI with Hierarchy Viewer
  - Memory Profiling
  - Network Profiling
  - Lint Checks
  - Exception handling
  - ADB
  - Crashlytics
- Successfully integrated LeakCanary into continuous integration workflows, ensuring early detection of memory issues during development.
- Successfully migrated application from single theme to having two variants in light mode and dark mode.
- In-depth understanding of implementing push notifications using FCM.
- Successfully integrated Lottie animations.
- Helped QA to build test automations using Appium.
- Working knowledge on implementing widgets, adding support to show some part of the app on users home screen.
- Experience implementing cashier portal with JavaFX and successfully integrated point of sale systems.
- Developed a tailored translator application for macOS that utilizes DeepL to translate provided strings using Swift, SwiftUI and AFNetworking.
- Utilized Google Maps API/Mapbox to integrate maps into applications and accurately display address locations.

Skills

- Languages: Java, Kotlin, Swift, SwiftUI, Python, Ruby
- Source Control: Git, Github, BitBucket
- Operating Systems: Mac OS, Windows, Android, iOS, Linux
- IDE(s): Android Studio, Xcode, Eclipse, Visual Studio
- Tools: Gradle, Scrcpy, Vysor, Postman, Appium

Contributions

Day/Night Mode Conversion with Theme Variants
- Orchestrated the integration of Dark/Night mode, ensuring users enjoy a visually comfortable experience in low-light conditions. Seamlessly implemented a transition mechanism between light and dark themes, upholding design consistency across the application.
- Introduced two theme variants, "Colorful" and "Less Colorful," enabling users to tailor their visual preferences.
- Leveraged the DayNight theme for efficient implementation, ensuring a responsive and cohesive user interface. Extended the theming paradigm to Jetpack Compose, providing a consistent and personalized experience across all UI components.

Internationalization Support with Multilingual UIs
● Spearheaded the implementation of internationalization support, seamlessly integrating three additional languages into the application.
● Extended multilingual support to both XML-declared UIs and Jetpack Compose components, ensuring a global user base.
● Improved accessibility and inclusivity by enabling users to interact with the app in their preferred language, enhancing the overall user experience.

Drag & Drop and Manual Re-order
● Implemented custom drag & drop using drag event listeners and callback methods. The functionality is enabled by long pressing on folders/items which allows users to move one or more folders/items and move into a new folder.
● Implemented custom reorder functionality using RecyclerView item decorations, which enables users to manually sort folders/items and place the folders/items in between a different set of items or at the beginning or at the end.

Comments and User Mentions
● Implemented commenting and replying on items and folders, the functionalities include supporting custom pagination (before Android Pagination Library is out), identifying other members of the folder in an existing or new comment using tokenization and REGEX, deep linking and highlighting to any given comment/reply from notification center or a push notification.

In App Nurturing Framework
● Established a tailored framework dedicated to crafting tutorials within the application, designed to facilitate user discovery and understanding of new or concealed features. This innovative framework incorporates interactive callouts strategically positioned to highlight and guide users to various UI elements throughout the app, fostering an intuitive and educational user experience.

My Feed
● Developed MyFeed with pagination functionality by leveraging the Android Room Pagination library. This implementation supports both staggered grid view and a single-column card view. The integration of pagination ensures efficient loading and display of content while accommodating diverse user preferences in terms of layout, providing an enhanced and responsive user experience.

Multiple Layout Types
● Enhanced functionality to display items within a folder with versatile viewing options, including tile, list, and gallery views, featuring staggered-grid, list, and grid layouts. Notably, both staggered-grid and grid views have a different column count for both folders and individual items. It's important to note that the underlying codebase remains consistent across these various layout types, with only the user interface components differing to accommodate the diverse display preferences.

CI/CD Implementation
● Led the design and implementation of a robust CI/CD pipeline using Gradle, Jenkins, automating the build, test, and deployment processes.
● Hands-on experience with setting up multiple CI/CD pipelines using Github Actions, Fastlane etc
● Wrote custom Python scripts to automate various tasks within the pipeline, such as file manipulation, interaction with APIs, and deployment-related activities

Web Services
● Designed and implemented essential web services using Ruby on Rails to support some services for mobile.
● Developed RESTful APIs to facilitate seamless communication between mobile devices and backend systems, ensuring efficient data exchange.

In App Camera

- Designed and integrated a customized in-app camera leveraging the CameraView library. The implemented functionalities encompassed a range of features, such as flash control, grid overlay, zoom functionality, focus adjustments, and the seamless capability for automatic uploading of photos and videos directly from the camera interface, eliminating the need to exit the camera application for uploading purposes. This enhanced user convenience and provided a comprehensive and user-friendly in-app camera experience.

Cashier Portal

- Designed and developed a cashier portal for windows using Java and JavaFX, seamlessly integrated point of sale systems to process the credit/debit cards transaction on a secure connection.

Offline Viewer

- Designed and implemented an offline storage to view the folders and items, accommodating various file types. This process included utilizing Android Room features and establishing distinct user databases to improve functionality. Notably, the application underwent a migration, transitioning from a single Dagger component to having a separate user-scoped component, thereby enabling support for multiple users.

Experience

Bublup Technologies Inc   Mar 2015 - Jan 2024
App link: https://play.google.com/store/apps/details?id=com.bublup.bublup

Roles: **Lead Android Application Developer** | **Senior Android Application Developer** | **Android Application Developer**

Reach: **Over 1 Million**

- Design and develop applications for Android platform.
- Participated in an Agile software development setting, contributing to streamlined project management and the punctual delivery of novel features.
- Digging through the iOS code base to find answers on certain requirements.
- Maintained comprehensive knowledge of the mobile development cycle and addressed challenges arising in each phase.
- Defined, created and maintained technical and user documentation, test cases and release notes.
- Collaborated with stakeholders regarding project capabilities and limitations to deliver optimal functionality.
- Employed third-party APIs to facilitate seamless access to external, in-app cloud data.
- Assess designs specifications, UX and raise any issues or concerns before implementing new features
- Lead the team to adapt to multiple new Android technologies - MVVM, Kotlin, Coroutines, Room, Pagination, Exoplayer, Jetpack Compose, Data Binding.
- Engaged in peer code reviews to verify code quality and compliance with best practices.
- Improving code standards by test driven development.
- Configured & implemented Appium test automation framework to streamline User Interface testing & help quick start the QA (Quality Assurance) team on automation.

Environment: Android Studio, Kotlin, Java, XML, Compose, Jira, Confluence, MVC, MVP, MVVM, Git, Github, Postman, Xcode.

ETS Corporation   Jul 2013 - Mar 2015
Role: **Mobile Developer**
Reach: **Over 20000**

- Designed and developed EMoney Mobile (Android) for credit card payments, utilizing Android SDK, MagTek SDK, EMoney web Services.
- Designed and developed PMoney Mobile (Android) Wallet, a pay-by-phone solution with digital wallet features.
- Engineered Trans Vault, a Java-based desktop POS application interfacing with Hypercom L5300 Terminals via USB/COM ports. Leveraged Jav FX for the User Interface, ensuring efficient communication with EMoney Web Services.
- Automated test scripting for PMoney and EMoney on Android using Robotium, improving testing efficiency and accuracy.

Environment: Eclipse, Xcode, Java, XML, JavaFX, Jira, Confluence, MVC, Git, Github.

George Mason University   Jan 2013 - May 2013
Role: **Graduate Teaching Assistant**

- Teach students essential Object-Oriented Programming concepts in lab sessions, ensuring a thorough grasp of fundamental principles.
- Offering guidance and mentorship to students, providing support in navigating academic and professional endeavors.
- Collaborate with professors to assess student progress, identify individual needs, and measure academic achievements.

Environment: Windows, Eclipse

George Mason University   Feb 2012 - Jun 2012
Role: **Web Developer**

- Spearheading the development of web applications using Adobe ColdFusion, I have successfully created robust and scalable solutions. My proficiency in ColdFusion extends to designing templates that ensure a seamless and engaging user experience.
- Skillfully integrating CommonSpot, a powerful web content management system, into our web development projects. This includes utilizing CommonSpot's features to enhance website functionality, optimize content management, and streamline template creation processes.
- Taking a hands-on approach to template design, I have contributed to the creation of visually appealing and responsive templates that align with modern design principles. This includes ensuring cross-browser compatibility and optimizing templates for optimal performance.
- Working collaboratively with cross-functional teams, I actively participate in design discussions and code reviews. This collaborative approach ensures the alignment of templates with project requirements and industry best practices.

Environment: Windows, Dreamweaver

Education

Masters in Computer Engineering   Virginia, USA
George Mason University   2011-2013

Bachelors in Electronics and Communication Engineering   Hyderabad, India
Jawaharlal Nehru University   2007-2011