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Location: Rockville, Maryland

Portfolio: migueledgarcia.com

US Permanent Resident (Green Card Holder)

SUMMARY

Passionate Android Software Engineer with over 13 years of experience, with most of my experience working in the healthcare industry building native android enterprise solutions. I have track record of modernizing outdated code bases bringing much higher stability and user experience allowing an increase on user retention and satisfaction. Strong focus in mentorship sharing my knowledge of android platform.

EXPERIENCE

Backline by DrFirst (Formerly known as Diagnotes)

Dec/2022 - Present

Senior Android Developer - Backline+

Rockville, Maryland

- Brought the app to a higher stability from 66% stability to 92% stability per Firebase Crashlytics and Android Vitals.
- Lead the migration of the project to use Google Play App Signing for signing and release builds to the Google Play Store.
- Migrated the project to Kotlin
- Introduce Jetpack Compose to the project.
- Clean up, optimize and migrated the project CI/CD pipeline from CircleCI to Semaphore CI.
- Enormously reduce the App size from 189 MB to 40 MB Mb.
- Made the apps more secure by significantly reducing our dependency of third party apps to handle media related task.
- Decreased compiling time by switching to KAPT and then to KSP for code generation annotation during compiling time, removed dependencies that heavily relied on code annotation generation.
- Implemented the ability screen share during video calls using a combination of MediaProjection API and Picture In Picture API, with auto switch between participants base on who was speaking at the moment.
- Teach Android developer and QA how to write proper unit test in Android.

DrFirst

Oct/2014 - Dec 2022

Senior Android Developer - Backline | Enquire | iPrescribe | Huddle

Rockville, Maryland

- Transition the Backline project from being a single user session app to a multi-user session app.
- Introduce Jetpack Compose to the project.
- Decreased compiling time by switching to KAPT then to KSP for code generation annotation during compiling time, and got rid of outdated library which allowed us to get rid of Jetifier, and added parallel process through Gradle property config.
- Implemented video/audio call functionality among them a custom implementation for the Twilio Video SDK for blurring the user background during video calls using Firebase ML Kit Selfie Segmentation.
- Implemented barcode scanner for driver licenses using Firebase ML Kit and running the barcode model locally
- I brought the Android app to 98.7% stability per Firebase Crashlytics and Android Vitals.
- Migrated part of the project to Separation of Concerns architecture, which allowed us to modularize the android projects, this in turn will allow the implementation of Google Play Instant Apps.
- Greatly reduce the App size from 46 Mb to 9-14 Mb.
- Made the apps more secure by obfuscating the majority of the projects code by properly configuring ProGuard, and also significantly reducing our dependency of third party apps to handle media related task.

Nerditechs

Jan/2012 - May/2017

Android Developer - CityFix | Horton Automatics Customer Care | Places Everyone Goes

Edinburg, Texas

- During my time with the company I design, develop, launch and maintain multiple Android applications.
- Implemented Google Play Services Location with Google Maps API to present user with real time visualization of their location

Department of Electrical Engineering at The University of Texas - Pan American

Jan/2014 - May/2014

Research Assistant - Mobile Electrocardiograma

Edinburg, Texas

- Research and develop an android companion application that connects to the mobile electrocardiogram via Bluetooth 4.0 LE.

Miscellaneous

Aug/2013 – Dec/2013

Student - Mobile OCR (Optical Character Recognition) | Pocket Advisor

Edinburg, Texas

- Created a native Android app that uses the Vuforia Augmented Reality library which I modify to allow the users to recognize words/sentences and in the same time be able to choose to what language to be translated, once translation is done the translated words are place on top of the original words using OpenGL ES to create 3D squares with the character texture of the word translated.

LEADERSHIP & IMPACT

- **President of the Association for Computing Machinery Student Chapter at UTPA** July/2012 to July/2013
- **Reduce cost of CI/CD operation by drastically reducing the amount of memory needed to compile the project and also the time it took to compile it**

EDUCATION

May 2014 University of Texas – Pan American, Bachelor in Computer Science

Edinburg, Texas

ACHIEVEMENTS

First Place Engineering and Computer Science Competition (Undergraduate) HESTEC 2013

Most Improved Organization by Engineering Student Advisory (2012 – 2013)

SKILLS

- **Knowledge of Android platform:** Jetpack Compose · LiveData · Kotlin Flow · Firebender · Kotlin Coroutines · Kotlin Extensions · RxJava · ButterKnife · Fragments · WebViews · GSON · Moshi · Google ML Kit Barcode and Selfie Segmentation · Familiar with JNI · Android SDK and Android NDK · OpenGL ES 2.0 · OkHttp · Volley · SQLite · Data Storage · Google Play Services Location · Broadcast Manager · Local Broadcast Manager · Snackbar · Permissions · Picasso · Glide · Material Design · Support Libraries (AppCompat, Design, CardViews, ExifInterface, Vector, Constraint Layout, Support-v4 and Support-v7) · Code Generation Annotations · Gyroscope Sensors · Bluetooth 4.0 LE (Low Energy) · Activity Lifecycle · Google Maps API · Firebase Cloud Messaging/Crashlytics/Analytics/App Distribution · Dagger 2 · Hilt · Animations(Activity Transitions, Shared Element, Circular Reveal, Page Transformer) · SQLite · Retrofit · AsyncTask · Volley · Dark Mode (Dark Theme) · LeakCanary · Android Jetpack (Room, Navigation, CameraX, Webkit, LiveData, ViewModel, WorkManager, DataBinding, Paging) · ExoPlayer/Media3 · Navigation Drawer Menu · ViewPager · Robolectric · MockServer · Mockito · MockK · Android Espresso Test · Vonage Video API Android SDK · Twilio Video (Video Calls) · Flow (Kotlin Reactive Framework) · Picture-in-Picture · Media Projection · Support for Vectors.
- **Programming Languages and Frameworks:** Java · KMP · XML · C++ · C# · C · PHP · MySQL · SQLite · Python · HTML/CSS · JavaScript · PHP · Kotlin · Groovy · Ruby · Ruby on Rails · Mongo DB.
- **Mobile Graphics Engines:** Unity3D (Video Game Engine) and Vuforia (Augmented Reality Engine)
- **Architectural Patterns:** MVC · MVVM · MVI
- **Methodology:** Test Driven Development
- **Speaks:** English and Spanish.