

GULRAIZ ALI

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Well-versed and curiosity-driven Software Developer with **8+** years of professional experience and **4+** years of leadership expertise. Proficient in designing innovative solutions, driving project success, and mentoring teams in adopting cutting-edge technologies. Adept at delivering robust, secure, and scalable mobile applications.

Summary of Technical Skills

- **Android Development** (Kotlin, JAVA, XML)
- **Flutter** (Dart)
- **UI/UX** (Jetpack Compose, XML, Google's Material Design, M3, Accompanist)
- **Architectures** (Clean Architecture, MVVM, MVC, MVP, MVI)
- **Databases** (Room, MongoDB, SQLite, SQL, Oracle)
- **Firebase** (Authentication, Realtime Database, Cloud Store, Storage, Push Notification, Crashlytics, Remote Config)
- **Network** (Retrofit 2, Picasso, Glide, Volley, OkHttp, SSL Pinning)
- **SDKs** (Facebook, YouTube, Google Maps, Jumio)
- **VCS** (GitHub, Git Lab, CI/CD, Bit Bucket)
- **Scrum / Agile Tools** (Trello, Jira, Wrike)
- **Libs** (PanoramaGL, Jsoup, Graph, MPAndroidChart, Lottie)
- **Testing** (JUnit, Espresso, Mockito)
- **Concurrency** (Coroutines, Threads, WorkManager, AsyncTask)
- Dependency Injection (Dagger Hilt)
- **Reactive Programming** (Rx Java, Bloc Pattern, Flow, LiveData)
- **Hardware** (Bluetooth, Motion, Environmental, Position Sensors)
- **Design Patterns** (Singleton, Builder, Factory, Observer, Repository, etc.)
- Problem Solving, OOP, Data Structures, Algorithms
- **Web** (HTML, CSS, PHP, JAVASCRIPT, Laravel,)
- Restful APIs and JSON, XML, Gson, Moshi
- **Security** SSL Pinning, Encryption / Decryption, Android Keystore

Professional Experience

Seer Solutions, Dubai

Oversees Development Center, Lahore, Pakistan

JUN 2024 – Current

Senior Android Developer

- Developed ATM and Mastercard modules for the **Kuraimi Jawwal (KJ)** application, improving the banking app's functionality and user experience.
- Developed the **Kuraimi Islamic Bank (KiB)** application, ensuring compliance with Islamic banking principles while delivering a seamless mobile banking solution.
- Enhanced mobile application security through **Keystore Encryption** and **SSL pinning**, significantly increasing data protection and safeguarding sensitive user information.
- Collaborated closely with cross-functional teams to deliver innovative solutions for the **MFloos application**, optimizing performance and scalability for financial transactions.

Saudi Telecommunication Company, Bahrain

AppsGenii Technologies (Pvt) Ltd, Lahore, Pakistan

JUL 2023 – JUL 2024

Senior Android Developer

- Revamped the **STC Pay BH** a multi-modular fintech application.
- Developed the **SDK** for integration of payment services for other apps.
- Obtained the certification of **Fawateer** the national Electronic Bill Payment and Presentment (EBPP) service of Bahrain.
- Integrated the **Jumio SDK** (identity verification system), **INTERCOM SDK** (Chat bot), Samsung Pay, etc.
- Achieved the certification of **MasterCard** payment technology corporation.

Lead Mobile Developer

- Collaborated with government agencies to design and deploy **5+ mobile** applications that streamlined public services, improving efficiency for over 20,000 officers.
- Upgraded and modernized the applications with the latest technologies, including Kotlin and Compose.
- Led teams in digitalizing government processes, reducing administrative overhead and improving citizen services.
- Implemented robust testing strategies, including unit and UI testing, resulting in a decrease in app crashes and ensuring app stability across various mobile devices and OS versions.
- Collaborated in code reviews, ensuring code quality, and adhering to coding standards, resulting in more efficient development processes and high-quality software.

Sure Skills, Ireland

OCT 2022 – DEC 2022

Subject Matter Expert / Technical Content Developer

- Published **Meta Android Developer Professional Certificate on Coursera**, attracting 28,000+ learners, reflecting content quality.
- Teamed up with SMEs and instructional designers, achieving a **4.7-star certification rating**.
- Enhanced learnability with assessments, reading materials, video lectures, and a final project, resulting in learner engagement and content retention.
- Actively participated in instructional design meetings to brainstorm and develop innovative teaching methods and strategies, enhancing the overall learning experience for certificate program participants.
- Coordinated with the quality assurance team to conduct comprehensive content testing, promptly identifying and addressing any technical or instructional issues, thus maintaining a high-quality learning experience.

Computer Human Interaction and Social Experience Lab (CHISEL),

Lahore University of Management Science (LUMS)

SEP 2016 – DEC 2022

Technical Team Lead

MAR 2019 – DEC 2022

- Completed **16+ projects** encompassing iOS, Android, Game Development, and Web Applications.
- Conducted technical interviews for hiring, leading to the selection of **15+ high-quality candidates** who went on to contribute significantly to project success.
- Led cross-functional teams of **20+ developers, designers, and domain-experts**, contributing to reduction in project delivery timelines.
- Offered expert remote guidance to international clients, boosting project efficiency and reducing technical issues, enhancing the client's satisfaction.
- Managed diverse technical projects including Android, iOS, Unity, Web, C++ and Python.

Senior Software Developer (Android)

DEC 2017 – MAR 2019

- Worked with **Harvard School of Medicine and Massachusetts Institute of Technology** researchers to develop 10+ Android apps for Autism, Dementia, Migraine, and Depression, benefiting 5,000+ individuals and families.
- Effectively teamed up with users, graphic designers, PMs, UI/UX experts, and domain experts, resulting in an enhanced in product design quality.
- Collaborated with developers to ensure cross-platform consistency, achieving a seamless user experience, and increased user engagement.
- Implemented various applications in several languages i.e., Unity 3D, Kotlin, Java, and PHP.
- Developed PHP based REST APIs for CRUD operations in MySQL and MongoDB.

Software Developer

SEP 2016 – DEC 2017

- Implemented robust app architectures and complex user interfaces.
- Responsible for complete app development life-cycle i.e., Analysis, Design, Implementation, Testing, Development, and Maintenance.
- Performed extensive automated and exhaustive testing on the emulators and physical devices.
- Launched multiple Android Applications to Google Play console.

- Collaborated with Psychologists, Linguists, and Educationalists for requirement gathering and feedbacks.

Projects

Kuraimi Jawwal (KJ) – [Link](#)

- Developed key modules for the mobile banking app, including ATM and Mastercard functionalities, enhancing the app's operational scope and user convenience.
- Strengthened application security by implementing Keystore Encryption and SSL Pinning to protect sensitive user data.
- Collaborated with cross-functional teams to optimize performance and scalability for financial transactions.
- **Technical Stack:** Clean Architecture with MVVM, XML, Fragments, Kotlin, Room, Live Data, Retrofit.

Kuraimi Islamic Bank (KiB)

- Developed core features for the mobile banking app, including secure account management, multicurrency transfers, and access to Islamic banking products.
- Implemented transfer functionality to other accounts, real-time transaction tracking, and an Alert Management system for notifications.
- Applied symmetric and asymmetric encryption to ensure secure transactions.
- **Technical Stack:** Clean Architecture with MVI, Jetpack Compose, Kotlin, Flows, Room, Firebase Push Notifications, Google Maps, Firebase Analytics, Retrofit, Lottie, JUnit, barcode scanning, biometric etc.

STC Pay Bahrain – [Link](#)

- Multi-modular Fintech Application containing features including international transfers, financial cards management, Apple Pay and Tap & Go, online shopping including stores and internationally, cashbacks, local transfers, bill payments, recurrent salary transfers, offers and promotions. Another main feature is Web Driven UI.
- Developed an SDK for checkout payment transaction with cryptography.
- **Technical Stack:** Clean Architecture with MVVM, Jetpack Compose along with Accompanist, Dagger Hilt, Reactive Programming (Kotlin Flows / LiveData), Google Material Design, NFC, Kotlin Coroutines, Jumio for KYC, , Retrofit 2, Crashlytics, Coil, Lottie, Biometric / Face Authentication, QR Code.

SparkEd - Learn Urdu Vocabulary – [Link](#)

- Application for Learning Urdu Vocabulary for English users.
- **Technical Stack:** Java, XML, JSON based dynamic UI, Custom Animation, Text to Speech, Media Player.

MIGRAINE APP (Collaboration with MIT and Harvard School of Medicine)

- Android and iOS applications for monitoring, analysis, guidance, and support for Migraine patients.
- **Technical Stack:** Sensors (Motion, Position, Environmental, Camera, Audio) of Android and iOS devices for monitoring and saving the data on the SQL server and in Firebase. Firebase features utilized in the app include Firestore, Realtime Database, Storage, and Authentication.
- The data collected through wearables was analyzed with Python.
- This project was in collaboration with MIT and Harvard School of Medicine.

Stockify – Pakistan Stock Exchange Analytics

- Android Application for tracking, analyzing, and managing investments in Pakistan Stock Exchange. This app consists of features such as accessing real-time market updates, creating personalized and categorized watchlists, and analyzing the portfolios based on categorical investments.
- **Technical Stack:** Compose for UI, MVVM Architecture, Repository Pattern, LiveData for Observer Pattern, retrofit 2 (along with Moshi and http logger) and JSoup for Network operations and Parsing Webpages, WorkManager and Coroutine Workers for background tasks, Foreground Notifications for custom alerts, Room database, Dagger Hilt for Dependency Injection, File Handling for exporting and importing data.

RAWAAN – [Link](#)

- Technical lead for the architecture and development of the Rawaan game, designed for the learning of Urdu language for dyslexics. A special curriculum was designed based on 100's activities and tasks which were dynamically generated based on the player's behavior for learning.
- The game was developed in Unity with Firebase for storing data.

EAST APP (funded by Mitsubishi Foundation) – [Link](#)

- Technical Lead for the Design and Development of the Unity based gamified application for Autistic kids.
- This application was developed on Unity for cross platforms based on dual language Urdu and English.

AUTISM ASSISTED (Application for Autism)

- Technical Lead for portal which can dynamically be used for different health web applications
- Website: <https://autism.assisted.pk/en>
- Android: <https://play.google.com/store/apps/details?id=com.autismassisted&hl=en>

OPEN DATA PORTAL (Web Application for Open Data) – [Link](#)

- Team Lead for the Pakistan's first open data portal funded by NCBC, HEC and Ignite.
- Technical Stack: Python, HTML, CSS, Flask, PostgreSQL, CKAN open-source data management portal.

TAXILA MUSEUM (Android applications funded by UNESCO)

- Worked as lead developer in both applications (KIOSK and Cross Android Device). Designing and development of this framework which can be used for any museum and for any language was my major responsibility. Moreover, this app contains magazine style layouts, audio and panorama tour guides.
- Multi-device Link: <https://play.google.com/store/apps/details?id=com.mawtechdev.taxilamuseum>
- Kiosk Link: <https://play.google.com/store/apps/details?id=com.mawtechdev.taxilamuseumkiosk>

AGHAZ (Mobile application and game suite for autistic children)

- Sole developer of the framework which is adaptable (based on user's behavior analysis).
- Technical features of the app are profile management, storing progress in MYSQL DB using PHP based REST API which uses JSON as IIS, threads and services for performance, Picasso for images, Custom Animations, Dynamic interface, media player, shared preferences, chat, Volley Library, and Curriculum.

LAHORE ZOO (Android application for Zoo as Learning Space)

- Responsible for development of the whole application and API's.
- This app utilizes advanced Image Views (for zooming, and scrolling images), UI built on Google's Material Design, PHP based REST APIs for communication with SQL database(online), Web View, Facebook's API (login, sharing, and Analytics) YouTube API (for videos), etc.

TALKING SCRIPTS (Mobile application for teaching Children by Remote Communication):

- Learning app through effective texts, pictures, animation and sounds (TTS).
- Link: <https://play.google.com/store/apps/details?id=com.mawtechdev.talkative>

BOL (Mobile application for people having communication issues)

- Designed and developed a fully customizable dynamic architecture for learning and communication of language (first version was focused on Urdu language).
- Precisely it contains: ViewPager, JSON Parsing, File Handling, Libraries (Picasso, Volley), MediaPlayer, Threads (AsyncTasks, Runnable), Assets Management, Custom Drawables, Fragment Communications, Interfaces, MediaRecorder, Camera, JSON based custom Database.

KALASHA TOUR GUIDE:

- The App provides basic but important information on the Kalasha valleys and will help you understand the local culture and values while you visit the place.
- Link: <https://play.google.com/store/apps/details?id=com.mawtechdev.gulraiz.kalashatourguide&hl=en>

HUMQADAM - GBV RESPONSE SERVICES:

- Humqadam application is designed to equip the women of Pakistan with the knowledge to combat Gender-Based Violence (GBV). It contains guidance on relevant domestic issues along with laws.

- Link: https://play.google.com/store/apps/details?id=com.haris_muneer.humqadam&hl=en

Smart Meter

- Java based android application for efficiently managing electricity bills, getting notifications about meters, viewing logs/graphs, registering complaints, and downloading bills for easy payment.
- Firebase Cloud Firestore is used as a scalable NoSQL cloud database to store and sync data for the client- and server-side development
- Firebase Cloud Storage is used in this project for storing content like pictures.
- Firebase Authentication is used for authentication of users through email.

FEST Website:

- Developed a WordPress website for demonstration of the portfolio for Research Grants.

ONE NEWS HUB

- **JAVA based crawler** that crawls different news sites and store data to MySQL database.
- **Android Application** which displays news from online database through PHP APIs.
- **Website** which displays categorized data from database.

DYNAMIC FORM GENERATOR

- Android application that **generates a graphical form** which takes the input from user, saves the results in local databases **SQLite** and generates a summary which can be exported as **JSON**, and **Text** format.

IMAGE COMPRESSION

- As a part of a bigger project, I developed an Android Application module for reducing images sizes.
- Key features include: **Custom File Manager** for navigation in storage, Selection of multiple files and directories, and **compressing the images** to reduce the size and save the space.

INTRELLIGENT

- Intrelligent connects Facebook advertisers to users interested in offer or product instantly via SMS. Close more sales for a better ROI. Sends users an automated welcoming text instantly to start a conversation.
- Technical Stack: Facebook SDK, Facebook Graph API, Facebook Web Hooks, Telnet SMS Api.

TensorFlow 2.0 Question Answering

- Led development of a TensorFlow 2.0-based project aimed at enhancing machine reading comprehension. Utilized the Natural Questions dataset to train a model for accurately extracting answers from Wikipedia articles in response to real user queries.

WEB AND ANDROID BASED SOCIAL NETWORK APP SECURE IM

- Web application based on HTML, CSS, JS, PHP, AJAX, SQL.
- Android Application based on Android, Eclipse, PHP, MySQL, Dreamweaver and a bit of Photoshop.
- Features of it includes user profiling (Register, Login, Updating), managing friends (viewing, adding, deleting), and fully functional real-time chat.

FRONT-END WEB DEVELOPMENT (HTML, CSS, BOOTSTRAP, JAVASCRIPT)

- Completed many projects related to front end development including conversion of Photoshop files to responsive webpages (CSS media queries were also used).

ANDROID GENIE Final Year Project

- A java-based desktop application for controlling Android devices from Windows personal computer.
- Key features of are: Connection through cable as well as Wi-Fi, Detailed device information, Rooting, Unrooting, Backup and Restore, Ram Cleaning, Flashing, Disk Management, Junk cleaning, Cache Cleaning, Similar Images Detection, Blurry Image Detection, and Noisy Images Detection.

EMBEDDED SYSTEM & ROBOTICS PROJECTS

- Controlling the color of LEDs from Android device using Arduino and Bluetooth HC05.
- Displaying words on LED Matrix from Android device using Arduino and Bluetooth HC05.

- Displaying time on TFT Screen from Android device via serial communication (USB, Bluetooth).
- Automating car which runs by avoiding obstacles and maintaining equidistance using Ultrasonic
- Sensors and STM32F103Rb.
- Automating home using Bluetooth HC05, WIFI ESP12 using Arduino boards.

EVENTO

- Custom Event Management Site based on **CodeIgniter** using **HTML, CSS, PHP, JS** and **Bootstrap**.

FLIPPER GHOST

- **Game Development** term project developed in **C#** and **Unity**. Uploaded on Google Play.

WINWON GAME

- Android online turn taking game developed using **Eclipse, MySQL, PHP, JAVA, XML** and **JSON**.

Education

Masters in Computer Science Riphah International University, Lahore, Pakistan. CGPA: 3.77 out of 4.00 (Position Holder)	2021 – 2022
International master's in Data Analytics University of Hildesheim, Hildesheim, Germany.	2018 – 2019
Bachelor of Computer Science, Software Engineering University of Central Punjab, Lahore, Pakistan. CGPA: 3.88 out of 4.00 (Gold Medalist)	2013 – 2017

Certifications

LinkedIn	Flutter Essential Training: Build for Multiple Platforms	Oct 2023
META	Create the User Interface in Android Studio	Sep 2023
META	Programming Fundamentals in Kotlin	Jun 2023
META	Introduction to Android Mobile Application Development	Sep 2022
META	Version Control	Sep 2022
IBM	What is Data Science?	Sep 2022

Teaching Experience

Aspire College affiliated with Government College University Role: Lecturer Courses Taught: <ul style="list-style-type: none">• Design and Analysis of Algorithms• Object Oriented Programming	May 2019 – Oct 2020
University of Central Punjab, Lahore, Pakistan Role: Teacher Assistant (Mobile Application Development)	Jun 2016 – Sep 2016

Publications

An Exploratory Study on Supporting Persons with Aphasia in Pakistan: Challenges and Opportunities
ASSETS '20: The 22nd International ACM SIGACCESS Conference on Computers and Accessibility · Oct 29, 2020

Languages

1. English – Fluent
2. Urdu – Native
3. Punjabi – Native