Umair Ahmed

MOBILE APP DEVELOPER (FLUTTER, ANDROID, IOS)

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My 4+ years of experience are a bit unique. I'm a lead mobile dev (Flutter, native Android and iOS) who also builds backend (.NET), but my real passion is in AI. My thesis on a C++/Python tool using the Gemini API shows where I want to go next. I'm looking for a role that combines all three.

Skills

- **Programming Languages**: Dart, JavaScript, Python, C++, Java, Swift, SQL, Typescript
- **Frameworks & Libraries**: Flutter, Android, iOS, Node.js, React (intermediate), .NET Core
- **Mobile Development**: Flutter, Android, iOS
- **Backend & APIs**: REST API Development, Express.js, .NET Core, MongoDB, PostgreSQL
- **Cloud & DevOps**: Google Cloud, Firebase, GitHub Actions, CI/CD, Docker
- **Tools & Platforms**: Git, GitHub, VS Code, Postman, Jira, Figma
- **Soft Skills**: Problem-solving, Team collaboration, Agile development, Communication

Work Experience

Full Stack Mobile Developer
Raheem Solutions
Jun 2022 – Aug 2023

- Led the development of scalable Flutter applications with clean architecture principles and advanced state management (Provider, Riverpod).
- Integrated Firebase modules (Auth, Firestore, Messaging, Analytics) and RESTful APIs to enable dynamic, datadriven features.
- Implemented CI/CD workflows using GitHub Actions for automated testing, builds, and deployments.
- Worked directly with native Android (Java) code to build and troubleshoot custom platform channels and Flutter plugin integrations.
- Built modular, reusable codebases and collaborated with backend, design, and QA teams in Agile sprints.
- Ensured app security and data integrity with secure storage, encrypted API tokens, and user authentication flows.
- Conducted code reviews and contributed to internal development standards and documentation.

Full Stack Mobile Developer
TechnoArts
May 2020 – Jun 2022

- Integrated **RESTful APIs** for real-time data fetching and dynamic content display
- Collaborated with designers and backend developers to align UI with functional requirements.
- Implemented **push notifications**, **local data storage** with **SharedPreferences**, and secure login flows.

- Diagnosed and resolved **performance bottlenecks** using Flutter DevTools and Android Studio profilers.
- Proficient in **Agile development** practices, including **sprint planning**, stand-ups, and retrospectives.
- Wrote **unit tests** and contributed to app stability through regular debugging and regression testing.
- Used **Git** for version control and actively participated in **peer code reviews**.

Education

Masters of Science in Computer Science

University of Vienna, Austria

Bachelor of Science in Software Engineering

University of Lahore, Pakistan

Projects

1. **C++ Helper Bot: AI-Driven Code Analysis Companion**

   - **Role:** Lead Developer & Researcher (Master's Thesis Project)
   - **Technologies:** Python, C++, Gemini API, Docker, Typescript, JS, Axios, Flask, WebSockets/Webviews, Node.js/npm

Project Scope & Features:

This intelligent companion tool was architected with distinct modules for code analysis, AI-powered generation, and advanced support.

Core Analysis & Safety:

- **Sandboxed Code Execution:** Executes C++ code in a secure, isolated Docker container to prevent system-level risks.
- **Performance Analysis:** Measures execution time, memory usage, and identifies computationally intensive functions to detect bottlenecks.
- **Multi-File Project Support:** Natively handles complex projects by analyzing dependencies and interactions across multiple files.

AI-Powered Generation & Explanation:

- **Natural Language Explanation:** Translates complex C++ code into a simple, line-by-line English description.
- **Unit Test Generation:** Automatically creates boilerplate and edge-case unit tests for C++ functions.
- **TDD Code Generator:** Generates placeholder C++ functions from a given set of unit tests to facilitate Test-Driven Development.
- **Automatic Documentation Writer:** Creates professional code documentation (e.g., Doxygen style) from function signatures and logic.
- **"English to C++" Code Generator:** Scaffolds C++ code structures and functions based on plain English requirements.

Code Optimization & Refactoring:

- **Code Optimization:** Provides intelligent suggestions to improve performance, memory usage, and readability.
- **Legacy Code Modernizer:** Analyzes outdated C++ code and suggests modern C++ idioms and best practices for refactoring.

Specialized & Gaming Support:

- **Game Logic Simulation:** Performs a "dry run" simulation of game logic to trace execution flow without full compilation.
- **Framework-Level Game Support:** Offers specialized analysis and suggestions for code written with specific game development frameworks.

2. E-Drive Vehicle Tracking App

Role: Lead Mobile Developer
Technologies: Flutter, Android, iOS, Firebase, Dot Net Core, Google Maps, RESTful APIs
Link: E-Drive Vehicle Tracking

Key Features:

- **UI/UX Enhancement**: Redesigned the user interface to ensure an intuitive and engaging experience, resulting in improved user retention.
- **Real-Time Tracking**: Integrated real-time GPS tracking to monitor vehicle locations, ensuring accurate and up-todate information.
- **Report Generation**: Developed robust reporting functionality for users to view detailed vehicle histories, enhancing data-driven decision-making.
- **Scalability**: Optimized backend services and app performance, successfully scaling to support over 10,000 active users.
- **Cross-Platform Compatibility**: Delivered a seamless experience across both Android and iOS platforms using Flutter.

3. Buddy – Team & Asset Management App

Role: Lead Mobile Developer
Technologies: Flutter, Android iOS, Firebase, Dot Net Core, RESTful APIs, Google Maps
Link: Buddy App

Key Features:

- **Attendance & Routine Management**: Designed a system that simplifies attendance tracking and routine management for better team productivity and reporting.
- **Task Delegation**: Enabled seamless task delegation for team members, ensuring improved collaboration and workflow efficiency.
- **Remote Training Integration**: Developed functionality to facilitate remote team training, allowing businesses to manage their teams effectively from anywhere.
- **Real-Time Asset Tracking**: Integrated real-time asset tracking, ensuring optimal resource management and facilitating better decision-making.
- **Dynamic Surveys**: Implemented customizable surveys for gathering valuable feedback, enhancing customer satisfaction and engagement.

4. Sales Assist – Retail Sales Management

Role: Lead Mobile Developer
Technologies: Flutter, Android, iOS, Firebase, Dot Net Core, RESTful APIs, Data Analytics
Link: Sales Assist App

Key Features:

- **Secondary Sales Process Optimization**: Streamlined secondary sales processes to improve operational efficiency and transaction accuracy.
- **Data-Driven Insights**: Leveraged analytics to provide actionable insights, improving decision-making and strategic planning for retail teams.
- **Pricing & Promotions Control**: Enabled sales teams to manage pricing, promotions, and team performance in realtime.
- **Advanced Retail Solutions**: Developed a solution that goes beyond traditional Distribution Management Systems (DMS), offering deeper insights into sales performance.
- **Operational Efficiency**: Enhanced the app to maximize revenue potential and improve business outcomes in the consumer goods sector.

5. Taza App

Role: Lead Flutter Developer
Technologies: Flutter, Android, iOS, Firebase, Dot Net Core, Google Maps, RESTful APIs

Key Features:

- **Streamlined Operations**: Designed and implemented a milk delivery app focused on optimizing delivery routes and minimizing errors in the delivery process.
- **User Control Features**: Enhanced user features such as tracking and order management, significantly improving user satisfaction and retention.
- **Real-Time Delivery Updates**: Integrated real-time delivery tracking, giving users full control over their orders.
- **Operational Efficiency**: Improved backend services for smoother order processing, ensuring efficient deliveries and better user experience.

and many projects …