Hadi Lashkari Ghouchani

Software Engineer

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Summary

Dedicated software developer with 19+ years of experience, including 9 years in professional Android development. Skilled in software architecture, algorithm design, and machine learning applications.
- Expertise in creating scalable, maintainable, and efficient software
- Strong advocate for SOLID principles, SSOT, pure functions, and stateless design
- Passionate about applying machine learning to improve human life
- Experience teaching algorithms and programming at university level
- Committed to continuous learning and open-source contributions
- Proactive, and transparent, in technical decision-making
Eager to collaborate with creative, motivated teams in challenging technical environments.

Experience

Software Engineer -> Productivity Engineer

at Bell Canada (via MobileLIVE)   Aug, 2022 - Present   Toronto, Canada

Promoted to Productivity Engineer.

Mission:
- Resolved VPN network proxy and self-signed certificate issues by developing an automated installation script and Jetpack Compose Desktop app, resulting in a 164% increase in build count on the Gradle Enterprise(Develocity) dashboard.
- Initiated and implemented Gradle Conventional Plugins to reduce code duplication and errors. Established Single Source of Truth (SSOT) for external library versions, significantly reducing runtime crashes caused by version conflicts.
- Spearheaded the adoption of Merge Trains and Merge Request Pipelines in GitLab, creating a Proof of Concept (POC) workflow that demonstrably improved code quality and streamlined the integration process.
- Optimized test execution, reducing incremental runtime by 52% and improving overall development efficiency.
- Served as the primary resource for build-related training and support across a team of 50+ Android developers, enhancing team productivity and knowledge sharing.
- Implemented a custom No-Framework dependency injection solution across multiple app and library repositories, enhancing modularity, testability, and maintainability while minimizing build times by avoiding code generation.
- Integrated Detekt to verify code quality in the merge request's pipelines.

Additional Technologies:
- Develocity(Gradle Enterprise), Gradle Conventional Plugin, Jetpack Compose Desktop, Detekt

Software Engineer

at Bell Canada (via MobileLIVE)   Apr. 2021 - Aug. 2022   Toronto, Canada

MobileLIVE: A Canadian tech-service provider specializing in digital transformation solutions. Bell Canada: Canada's largest telecommunications company, offering mobile services (Bell Mobility, Virgin Mobile), television (Bell Satellite TV, Bell Fibe TV), and internet services across the country.

Mission:
- Implemented a Request for Comments (RFC) process for technical decision-making, streamlining the evaluation and adoption of new ideas across the organization.
- Led regular knowledge-sharing discussions across the team on SOLID principles, modularization best practices, feature flag implementation, and monorepo architecture, elevating the team's overall code quality and architectural design skills.
- Conceived and executed an automated system for cloning and building source code across a multi-repo setup, significantly reducing version conflicts and enhancing code visibility for efficient debugging.

Technologies:
- Kotlin Coroutines / Mockk, Mockito, jUnit, etc.
- Agile, Sprint, Lane based branching strategy, CI/CD
- Atlassian Jira, Atlassian Confluence, Gitlab, Jenkins, Slack, Branch.io, inVision, Dynatrace, etc.

Staff Android Developer

at iFood (via Letgo)   Oct. 2020 - Mar. 2021   Barcelona, Spain

iFood is a leading food delivery platform, dominating markets in Brazil, Colombia, and Mexico. It's the market leader in Latin America with 50+ million Android app installations.

Mission:
- Spearheaded the implementation of composite build for Gradle dependency management, reducing incremental build time from 13+ minutes to under 60 seconds when updating libraries.
- Developed the Android component of a cross-platform metadata project, contributing to a comprehensive dashboard that unified information from highly modularized Android/iOS projects(200+ modules) with backend data.
- Initiated and executed a strategy to refactor legacy code out of the root module, resulting in a 55% decrease in incremental build time and improved overall system architecture.
- Identified and resolved multiple Application Not Responding (ANR) issues by applying robust architectural principles, significantly enhancing app stability and user experience.
- Engineered custom wrappers for external libraries to improve error handling and system resilience during critical failures.

Technologies:
- Dagger 2, Room, Kotlin Coroutines, Moshi, WorkManager / Mockk, Robolectric, jUnit, etc.
- Agile, Sprint, Github Flow, CI/CD, Gradle Enterprise
- Atlassian Jira, Atlassian Confluence, Github, Jenkins, Slack, Databricks, Firebase, Bugsnag, Logzio, etc.

Senior Android Developer

at Letgo: Leading Classified Marketplace   Oct. 2019 - Mar. 2021   Barcelona, Spain

One of the largest classified marketplaces in the United States at the time. Market leader in Turkey with 15+ million Android app installations. Mission-critical acheivment: Optimized feed loading performance, reducing launch time by over 60 seconds.

Lead Android Developer

at Sheypoor: Top-Tier Classified Marketplace   Jan. 2018 - Jan. 2019   Tehran, Iran

Impressive user base: 13+ million overall users, 1.5+ million daily active users. High engagement: 344+ million sessions. Key Achievement: Spearheaded initiatives that tripled daily active users from 500,000 to 1.5+ million within one year.

Senior Android Developer

at Myket: Top-Tier App Store and Social Network   Sep. 2015 - Des. 2017   Tehran, Iran

Java and C# developer

at Soha System   Mar. 2015 - Aug. 2015   Tehran, Iran

Article / Repository

- 2024 Contribution to HF Candle: HF Candle is a Rust alternative to work with LLMs.
- 2024 City of Toronto RAG GPT: The project received the second position award in the TMLS Hackathon.
- 2024 Hair Segmentation: A ML model to detect and segment hair in images
- 2024 dragon detector: A simple ML model to detect dragon in images
- 2024 Sample Rust App: A sample app to crawl an API and put the data in a database.
- 2024 Nix Effect pod: Modularize effects of all kinds, and stay in-control, with NixOS and podman.
- 2023 Sample App: Refactored a Mastodon client app to a modularized Jetpack Compose-driven architecture.
- 2023 Post: Dependency Inversion Principle
- 2023 Contributing to nixpkgs/androidenv: Nix is a language that is designed to have reproducibile output.
- 2022 Post: Logic Tree in Android
- 2022 Sample App: Molecule sample app to solve some scoping problems in Android development.
- 2022 Post: Reproducibility
- 2021 ProAndroidDev post: Are feature flags, build variants, and sample apps related concepts?
- 2021 iFood Engneering post: Modularization tip: optimize the Root Module.
- 2021 ProAndroidDev post: Happy Railway. An improvement for Railway Oriented Programming in Kotlin.
- 2021 Library: Happy is a library to auto-generate Kotlin code to make calling APIs more concise.
- 2020 POC: Rust Flutter Reactive is an idea to use Flutter as UI and Rust for the main project.
- 2020 Make Log4k Multiplatform: Simple logging library for Android, iOS, Mac, etc.
- 2020 ProAndroidDev post: A/B Testing Myths
- 2020 Sample App: Provide a full implementation for a No-Framework Dependency Injection in Kotlin
- 2020 Contributing on Arrow Library: Arrow is a library for Typed Functional Programming in Kotlin
- 2020 Library: A Kotlin compiler plugin that generates trackable method
- 2020 Medium post: Save State By Using RxJava or Kotlin Flow
- 2020 Medium post: RxJava instead of LiveData in MVVM
- 2020 Library: A glue between the lifecycle of LifecycleOwner in Android and upstreams in RxJava
- 2020 Library: A glue between the lifecycle of LifecycleOwner in Android and Kotlin Coroutines
- 2020 Library: Simplifier for unnecessary complex lifecycles
- 2019 Sample App: Functional Programming + Clean Architecture
- 2019 Sample App: Movie Challenge
- 2019 Math Library: Modularized, mathematical and multiplatform Kotlin library
- 2018 ProAndroidDev post: Logging in Kotlin
- 2018 Log4k Library: Easy logging library, but unfortunately it's in Sheypoor repository
- 2018 ProAndroidDev post: Reactive MVVM architectural pattern

Education

Sharif University Of Technology	M.Sc	in Physics	Feb. 2010	Tehran, Iran
Payame Noor University	B.Sc	in Physics	Jul. 2007	Mashhad, Iran

Tools / Skills

Rust
tonic/prost/openssl/tokio/flatbuffers/thrift
Rc/Arc/Mutex
FFI

Professional Summary, Interests, and Insights:
- Rust's type system is what you need for scale-up.
- Borrow Checker restrictly stops any memory leaks.
- The second most efficient programming language.

Database
PostgreSQL(UDF)/MySQL/SQLite

Zig
zigcoro/Metaphor
Professional Summary, Interests, and Insights:
- C is the language for humanity's best software.
- Zig is a safer C.

Podman/Docker
Buildkit/Compose/Cache

Professional Summary, Interests, and Insights:
- Reproducibility is the key to productivity.
- Isolation is the key to reproducibility.

Nix
NixOS/Nix Darwin
mkDrivation/mkShell

Professional Summary, Interests, and Insights:
- Reproducibility and isolation are guaraneed.
- Respecting pure functions, building block of caching.
- More consistent caching experience than containers.
- Honored to be a NixOS Maintainer (2023-Present).

Software Architecture
Clean Architecture/Hexagonal Architecture
Unidirectional data flow Architecture
Logic Tree Architecture
MVVM/MVI/MVP/RMVVM

Principle
Clean Code/SOLID
Object Oriented Programming
Functional Programming
Stable Dependencies Principle
Stable Abstractions Principle

Design Pattern
Factory/Builder/Singleton/...
Adapter/Facade/Proxy/Visitor/Delegate/...
Strategy/Chain of responsibility/...

Android test library
JUnit/Mockito/Espresso/JaCoCo/...

Build Tool
Nix/Gradle/Cargo/Sbt/Maven/Ant/Make/...

Command Line Tool
tmux/bash/grep/sed/netstat/awk/podman/...
adb/sdkmanager/avdmanager/...

Programing Language
Kotlin/Rust/Python/Java/Scala
Groovy/Dart/Javascript/Ruby...

Workflow
Trunk Based development/Github flow/Git Flow
Cross-functional team

Operating System
Linux(NixOS/Fedora/Ubuntu/Debian), MacOS

Achievements and Recognition

- 2024 Second position in AWS Summit's Gameday
- 2024 Second position in Toronto Machine Learning #TMLS Hackathon
- 2020 Had an offer from MobileLIVE, Toronto, Canada
- 2020 Had an offer from iFood, Remote
- 2019 Had an offer from Kik, Kitechener, Canada
- 2019 Had an offer from Letgo, Barcelona, Spain
- 2019 Had an offer from CRITICAL Techworks, BMW, Porto, Portugal
- 2019 Had an offer from The Next Big Thing, Berlin, Germany
- 2018 Received result-oriented badge in Sheypoor
- 2007 Ranked 44th among more than five thousand participants in the National Graduate Entrance Exam in Physics

Language

English: Advance
Farsi: Native