Hadi Lashkari Ghouchani

Software Engineer

@ hi@hadilq.com   🔗 hadilq.com   📍 Toronto, Canada

github.com/hadilq   𝕏 x.com/@hadilq   in linkedin.com/in/hadilq

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. Key attributes include:
- 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

Seeking opportunities to leverage extensive software development background and growing machine learning expertise to create innovative solutions. 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 runtime by 18% 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 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 Λrrow Library: Λrrow 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

Machine Learning

Tensorflow/Keras/OpenCV
Numpy/Ultralytics/PyTorch
Supervised/Unsupervised
KMeans/Principal Component Analysis
Hugging Face/Replicate/Paperspace

Professional Summary and Interests
– Philosophy! As someone who think \
he lives in a deterministic/computable world,\
I prefer to spend more time on studying\
heavy computation in the hope to make them\
more efficient.

Android

Lifecycles/LiveData/Navigation/Paging/ViewModel
Multidex/Test/Data Binding/WorkManager/Room
Android Architecture Components/JetPack
Anvil/Dagger 2/RxJava 2/Retrofit 2/...
Kotlin Multiplatform/Kotlin Coroutines
Kotlin Compiler Plugin/KSP/...
Compose/Data Binding/View Binding/...

Professional Summary and Interests
- Android is partially open source OS.
- Generally interested in distributed computations.

Rust

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

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

Podman/Docker

Buildkit/Compose/Cache

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

Nix

NixOS/Nix Darwin
mkDrivation/mkShell

Professional Summary and Interests
- Reproducibility and isolation are guaraneed.
- Due to respecting to pure functions,\
it provides better caching experience than Podman/Docker.

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

Special Honor

- 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