Ralf Wondratschek

https://ralf-wondratschek.com

Education

Friedrich Schiller University Jena
Degree: Master of Computer Science
Grade point average: 1.4 (where 1.0 is the best)

Friedrich Schiller University Jena
Degree: Bachelor of Computer Science
Grade point average: 2.0 (where 1.0 is the best)

Highlights

- Organizational leader with track record of leading strategic and complex initiatives
- Management experience as Tech Lead Manager for senior engineers
- Focus on developer productivity engineering and software architecture
- Strong expertise in native Mobile technologies like Kotlin Multiplatform, Compose Multiplatform, Coroutines, RxJava, Dagger, Gradle and many more
- Speaking at conferences worldwide
  - Presentations: https://ralf-wondratschek.com/presentations.html
  - Blog posts: https://ralf-wondratschek.com/blog-posts.html
- Created and maintain popular open source projects, e.g.
  - App Platform, an application framework for state and memory management suitable for Kotlin Multiplatform projects https://amzn.github.io/app-platform/
  - kotlin-inject-anvil, which is a dependency injection framework for Kotlin Multiplatform https://github.com/amzn/kotlin-inject-anvil
  - Anvil, which is used by Square, Dropbox, Slack and many more: https://github.com/square/anvil
  - android-job, which was used by Twitter, Square, Dropbox, Mozilla and The New York Times before WorkManager replaced it: https://github.com/evernote/android-job
- Former Google Developer Expert for Android: https://g.dev/ralf

Employment History

Senior Staff Software Engineer   2025 – present
Block

Technical lead on the Foundation Android team. Picking up where I left off three years ago.

Highlights:

- Migrated the Square monorepo to Ktfmt
  https://engineering.block.xyz/blog/adopting-ktfmt-and-detekt
- Open sourced Metro extensions as Kotlin compiler plugin
  https://github.com/square/metro-extensions

Principal Engineer   2022 – 2025
Amazon

As Principal Engineer, I provide strategic technical leadership to drive innovation in the Last Mile delivery ecosystem, enhancing safety, efficiency, and convenience for drivers operating delivery vans. I set the technical vision with a strong focus on collaboration and developer productivity to empower teams and engineers to deliver scalable solutions efficiently.

Highlights:

- Developed and open-sourced Kotlin Multiplatform App Platform. I guided multiple teams during the adoption in applications with multiple hundred contributors. The new platform addressed several shortcomings and allowed us to build new products for Android, iOS and Linux with little effort.
  https://amzn.github.io/app-platform/
- Migrated several applications to use modern dependency injection solutions. I open-sourced our framework with Kotlin Multiplatform.
  https://github.com/amzn/kotlin-inject-anvil
- Built a new version of our main app to retrofit ICE vans with a tablet and full vehicle integration to bring the experience from Rivian Electric Delivery Vans into our existing fleet.
- Created automated testing strategy to reduce burden for our QE team and continue scaling our growing number of products.
- Shipped an SDK for external partners to integrate our app into their infotainment system.
- Accomplished several developer productivity engineering milestones such as code modularization, improving build time by 60%, adopting modern frameworks, restructuring our Gradle build tooling, and many more.

Principal Software Engineer / Technical Lead Manager   2020 – 2022
Senior Staff Software Engineer   2018 – 2020
Square

Technical Lead Manager on the Developer Empowerment team leading the isolated development / feature sandboxing team in a codebase with 3.5+M lines of code. Organizational leader with a track record of leading strategic or complex initiatives that have a clear impact on the success of their organization.

Several milestones have been hit:

- Influenced and guided teams to adopt isolated development in a self-serve way: over 200 isolated apps have been created so far
- Implemented and rolled out Anvil (Kotlin compiler plugin) to improve dependency injection in many ways and make builds faster (Anvil is used by many other companies like Slack, Dropbox and Snap)
- Build time reduced from several minutes to seconds for local development
- Sync time in IDEs reduced from 15+ minutes to tens of seconds
- Automatic metric reporting and benchmarking
- UI test sandboxing for stabler UI tests, test avoidance and automatic test sharding
- Introduced a new module structure 3 years ago for the entire codebase to scale for future growth - from 400 to 3,800 modules

Some of my work has been published or open sourced:

- I covered Isolated Development in this talk from 2019: https://www.droidcon.com/2019/11/15/android-at-scale-square/
- Anvil, the framework to make dependency injection easier, to remove boilerplate and improve build times, has been open sourced: https://github.com/square/anvil
- Blog post: Measure build times: https://developer.squareup.com/blog/measure-measure-measure/
- Blog post: Introducing Anvil: https://developer.squareup.com/blog/introducing-anvil/
- Blog post: Chasing swallowed exceptions: https://developer.squareup.com/blog/chasing-swallowed-exceptions/

Tech Lead, Android   2014 – 2018
Evernote

In 2014 I joined Evernote as a Sr. Software Engineer, Android on the product team. At the end of 2017 I became the tech lead of the Android team with 7 engineers. I provided technical guidance and coordinated technical tasks. My focus lay on the architecture of the Android related projects to be able to move forward fast.

During these years I have worked on almost all pieces of the application. Highlights are the camera integration, collecting documents from the camera roll and fingerprint authentication. Even before I became tech lead I led initiatives to modernize the project and Android codebase, e.g. extendible modularization of the monolith, MVP/MVVM architecture, stable unit test setup, common themes and styles, introduced technologies like Kotlin, Dagger and the reactive programming paradigm with RxJava.

I also created and maintained several open-source projects at Github, e.g. android-job, which is used by many other companies like Twitter, Square, Dropbox, Mozilla and The New York Times.

Noteworthy are:

- Android-job: https://github.com/evernote/android-job
- Android-state: https://github.com/evernote/android-state
- Evernote Camera: https://blog.evernote.com/blog/2016/05/05/scan-annotate-evernote-android/
- Evernote Android SDK: https://blog.evernote.com/tech/2015/05/28/android-sdk-v2/

Self-Employed   2012 – 2017

I founded my own company in 2012 to develop and sell Android applications on the Google Play Store and to work as a freelancer. I have published four applications until now (after years of not maintaining them anymore they got removed from the Play Store)

Noteworthy are:

- *PowerPoint OpenOffice Remote:* https://web.archive.org/web/20200219141404/http://www.android-powerpoint.com/

- *Shutdown Remote:* https://web.archive.org/web/20200219141409/http://www.android-powerpoint.com/shutdown

- *Ping Pong Holo:* https://web.archive.org/web/20200219024113/http://www.android-powerpoint.com/pong/

- *SQRL:* https://web.archive.org/web/20200219024133/http://www.android-powerpoint.com/sqrl/

Student Employee   2012 – 2014
adorsys GmbH & Co. KG

I was the chief engineer of all Android projects. We developed native applications for various platforms in a small team. I managed the Android apps and delegated smaller tasks to one of my colleagues.

Overall I've worked on eight apps and two internal libraries for multiple customers. The libraries' main focus was on the camera and backend integration. I defined and implemented the interfaces, took care of the quality assurance and set up the continuous integration builds. All projects together have about 50.000 lines of code, most of them written by me.

Student Employee 2010 – 2012
AGETO Service GmbH

The main project I worked on focused on Germany's new identity card called *"Neuer Personalausweis"* or short *nPA*. The *nPA* helps you to authenticate yourself on the Internet in a very secure way. During this time, we created an Android and desktop application in order to use the identity card. I also worked on several Internet portals and integrated an interface supporting the *nPA*.