

# VICTOR SHUTEMOV

✉ [victor@shutemov.com](mailto:victor@shutemov.com) | 🌐 [shutemov.com](https://shutemov.com) | P: 347-921-2305

## SUMMARY

Experienced Android Platform Engineer with 14+ years of expertise in mobile and embedded software development, specializing in Android Automotive OS.

Proven ability to work across the full stack, from hosting VM and kernel-level setup to customization of AOSP platform and creating user-facing applications.

Versatile in modern development tools and practices and adept at balancing scalable, maintainable architectures with pragmatic engineering choices.

A proactive team player with a strong track record of identifying opportunities, improving development efficiency, and driving product excellence.

## TECHNICAL SKILLS

**Primary Languages:** C++, Java, Kotlin, Python

**AOSP platform:** Android Open Source contributions, Android Automotive (AAOS), SystemUI, SELinux, Init, GRF (vendor freeze), xTS, Soong, Make, Bazel, Treble, HIDL, AIDL, Emulator (goldfish, cuttlefish, trout), QEMU, CrosVM, Virtualization, Vehicle HAL, GKI/KMI, Broadcast Radio HAL, Networking, Qualcomm BSP integration, QNX RTOS, QVM, VirtIO, gfxstream, boot and performance troubleshooting.

**Android applications:** Jetpack (room, compose, navigation, etc), JNI, SystemUI, Custom Views, Widgets, Bluetooth, GAS, Chassis, Projections (Carplay, Android Auto), NDK, Sensors, Espresso, Mockito, Gradle, Dagger2, Koin, JUnit, UIAutomator, Gtest, OpenGL-ES, GLSL, GPU & CPU Profiling.

**CI/CD & DevOps:** Git, Gerrit, Jira, Buganizer, Gitlab

**Networking & Data:** Retrofit, Protocol Buffers, SQLite, Firebase, REST, SOAP, MySQL

**RTOS and virtualization:** QNX, QVM, Virtio, QEMU, CrosVM

## EXPERIENCE

### Platform Engineer

*Haleytek AB, Gothenburg, Sweden | September 2021 - Present*

Collaborated with Google on Android Automotive OS for Geely Group car brands:

- Led development of Android emulators (Goldfish, Cuttlefish, Trout) for head unit and ECU simulation; contributed improvements upstream to Google's emulator projects
- Streamlined BSP integration flow, greatly reducing bring-up time, enabled continuous delivery and resolved boot and performance issues across the platform
- Drove Android virtualization initiatives, replacing pass-through hardware setup with virtualized components using QVM as a host VMM and google trout as a guest, improving testability and scalability.
- Provided expert support on core AOSP systems, build configurations, and SELinux to achieve code reusability and maintain long-term compatibility with evolving Google standards.
- Actively contributed to AOSP and related open source projects

**Tech:** Android Automotive OS, Java, C++, Python, Soong, HIDL, AIDL, Vehicle HAL, Some/IP, Bluetooth, QNX, QEmu, CrosVM, Virtio, Android Kernel (ACK, GKI).

### Infotainment Platform Engineer

*Volvo Cars Corporation, Gothenburg, Sweden | March 2020 - September 2021*

Contributed to Android-based automotive infotainment system and tools:

- Enhanced existing automotive emulator with production-grade Vehicle HAL, Bluetooth and WiFi support, parking camera stack, enabling development and testing of HVAC, telephony, media, parking assist and vehicle functions in a virtual environment.
- Optimized emulator performance and achieved memory saving by 35%.
- Released first public automotive emulator for android studio.
- Introduced a modular product architecture, unifying the platforms and significantly reducing code duplication.
- Developer of key components including multi-user support, settings, media, and UI frameworks extensions (chassis).

**Tech:** AOSP, Android Automotive, Java, C++, Kotlin, Python, Soong, Make, HIDL, Vehicle HAL, Agile, Scrum, Jira, Git, Gerrit, Buganizer, MVVM, TDD, JUnit, UIAutomator, Tradedef, CTS/VTS.

### Senior Android Developer

*CEVT AB, Gothenburg, Sweden | July 2018 – March 2020*

Developed an Android-based infotainment system for Lynk & Co brand vehicles:

- Worked on crucial features, including FM/DAB radio, Bluetooth media/telephony, Android Auto and CarPlay, System UI, Launcher, Peer-to-Peer Car Sharing System (head unit app, mobile phone app, backend), Settings, and Vehicle functions control app

- Initiated and led the creation of a custom Android Automotive emulator featuring a built-in vehicle data simulator, significantly improving work efficiency and testing capabilities.
- Proposed and implemented a hybrid approach to in-car radio for improved user experience

**Tech:** AOSP, Android System & Hidden APIs, Kotlin, Java, C++, Make, Vehicle HAL, Bluetooth Stack, Broadcast Radio, Jetpack, MVVM, MVP, SOLID, TDD, Dagger2, Koin, Retrofit, MariaDB, Spring Boot, UIAutomator, Espresso, JUnit, Mockito, Git, GitLab CI, Jira, Agile

## **Independent Mobile Games Developer**

*Kaliningrad, Russia | 2013 – 2017*

Designed and developed a portable 3D game engine and released several game titles:

- Built and released multiple games based on the engine for Android, iOS, BlackBerry QNX, and Amazon Kindle platforms
- Focused on low latency rendering, memory footprint and portability
- Engineered custom rendering, animation, and asset management systems

**Tech:** OpenGL-ES 1.0, 2.0, C++, Java, GLSL, JNI, XCode, SQLite, Blender 3D (models, animation), python, Git, Inkscape, Android, iOS, debugging, CPU and GPU profiling, address sanitizing, memory leaks and footprint optimization

## **Mobile Applications Developer**

*Mobile Payment Systems Ltd., Moscow, Russia | 2011 – 2013*

Developed mobile banking, payment, and e-commerce applications across multiple platforms including Android, iOS, Windows Mobile 6, and Windows Phone 7

- Designed and implemented several applications and features from the ground up, achieving high user adoption and top usage ratings
- Architected a SOAP-based backend API with industry grade security and implemented a lightweight gateway using Protocol Buffers for efficient mobile communication
- Pioneered user-facing features, such as barcode payments, and a pay phone widget

**Tech:** Java, Objective-C, C#, SOAP, Protocol Buffers, OpenSSL, Oracle DB, Tomcat, JBoss, Android, iOS, Visual Studio, Eclipse, SVN, Jira, Redmine

## **EDUCATION**

**2007-2011**      **Bachelor of Software Engineering,**  
*Moscow State University of Technology “Stankin”, Moscow, Russia.*

**2004-2007**      **Bachelor courses in Applied mathematics and computing,**  
*Chelyabinsk State University, Russia*