

Erfan Abdi - Senior OS Engineer

+ CONTACT

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Date of birth September 15, 1999

+ JOBS EXPERIENCE

- BATNA – Tehran, Iran <https://batna.ir/> Part-time Operating System Engineer (Feb 2020 - Nov 2020)
- Worked on AOSP codebase to bring up a custom secure OS (SanaOS)
 - Implemented Monthly Security Update Integration
 - Implemented security features in AOSP for military use cases
 - Worked on porting device sources to SanaOS (android 10 and 11)
 - Worked on qualcomm and mediatek BSP for custom hardware
- Volla Systeme GmbH – Remote, part-time Senior Operating System Engineer and Devops (Since Jul 2021):
Remscheid, Germany <https://volla.online/>
- Leading the Volla Software development team for VollaOS
 - Handling System administration and CI/CD on volla servers
 - Complete Bring up of VollaOS platform based on AOSP and LineageOS
 - Worked on mediatek BSP for Volla devices
 - Implemented new apps and services on OS on top of android such as Security mode (Network and app locker), Zombifier, Updater, Spotlight
 - integrated MediaTek enhancements from BSP to VollaOS
 - integrated ODM custom hardware support to AOSP (Android 11 to 15)
 - Volla Phone
 - Volla Phone X
 - Volla Phone 22 and 22 Plus
 - Volla Phone X23 and X23E
 - Volla Phone Quintus
 - Volla Tablet
- Multiways International - Dubai, UAE <https://dariamobile.com/> Remote, part-time Software Team Manager (Since Dec 2021):
- Leading the OS and App team of DariaOS
 - Complete Bring up of DariaOS platform based on LMODroid
 - Worked on Mediatek BSP for Daria devices
 - Integrated GMS Express support to AOSP
 - Worked on CTS and GMS tests and certified multiple devices on google
 - Implemented Blockchain based wallet app and system service
 - Enhancement on Kernel and User-space HAL and drivers for fingerprint, power and other hardware components
 - Implemented extra security layers on bootrom, bootloader and userspace layers
 - integrated ODM custom hardware support to AOSP (Android 13 to 15)
 - Daria bond
 - Daria bond 2 (*winner of 7 design awards*)
 - Daria bond 2 lite

+ EDUCATION

- 2011 - 2016 Allameh Helli (Talented) Highschool (Diploma in Experimental Sciences)
- 2017 - 2019 Eastern Mediterranean University (Faculty of Medicine)
- 2019 - 2022 Iran University of Medical Sciences (Faculty of Medicine)
- 2022 - 2025 Islamic Azad University, Computer Engineering (Bachelor's degree)

+ HIGHLIGHTED PROJECTS

ANDROID DEVICE PROJECTS

- Active Development for below devices:
 - Moto Z, Z2 Force, X4, G7, G9+, Edge, Gigaset GS290, GX290, GS5, GX4, Daria bond 1, 2
- Contributions on below devices:
 - Xiaomi Redmi note 7, 8, 9s, Samsung 9810 family and ...
- Development of Custom Kernels (3.0, 3.18, 4.4, 4.9, 4.14, 4.19, 5.4, 5.10, 6.1, 6.6)
- Development of Custom Recovery “TWRP” (Team Win Recovery Project)
- Development of official LineageOS 14, 15, 16, 17, 18, 19, 20, 21, 22
- Full reverse engineering and bring up of moto mods to AOSP Projects.

ERFAN GSI Founder and Core Developer of ErfanGSI tool which is building GSI from any type of firmware's or device specific ROMs

DROIDIAN Debian-based distribution for mobile devices. to run Mobian on Android phones.

- Basic bring up of a full Debian based linux distro for Halium
- Added Android hwcomposer2 graphic stack support to wlroots and kwin with libhybris
- Patches on phosh and phoc to run smoothly on android devices

LMODroid is a Free, Opensource Android Custom OS, Based On AOSP, Striving to Provide its Users, A Clean, Secure, Bloat free & Sturdy Experience with Minimal Customization.

- Custom features and app developments on android 11 to 15 such as: FOSS FaceUnlock, Desktop Mode, Parallel Spaces, Game Space
- Redesign of old obsolete AOSP apps: Phone, SMS, Clock, Calculator

WAYDROID Founder and Core Developer of Waydroid, a container-based approach to boot a full Android system on a regular GNU/Linux system over wayland protocol.

- Customizations on AOSP to run on a Linux container
- Developed custom HAL for Display, Input which communicates with wayland
- Integrated both Mesa and libhybris based solutions for graphic HAL
- Developed a python tool to handle container and also call and register system services on android
- Developed binder based sensors HAL on linux with sensorfw

LINDROID Founder and Core Developer, Lindroid is an Android app that lets you run Linux in a container, with support for hardware acceleration.

- Developed custom HAL in to pass graphical buffers from Linux to android
- Developed app to display Linux UI and audio with container management

+ ORGANIZATIONAL EXPERIENCE

LINEAGE OS	Device developer at lineage, and core platform contributor (Since December 2016)
ANDROID ICE COLD	Device Developer and design contributor (Feb 2018 – Jan 2019)
HALIUM	Developments on halium project, to make use of android devices hardware on GNU/Linux OS (Since December 2019)
UBUNTU TOUCH	Device and platform side contributions on ubuntu touch for android devices on ubports foundation (December 2019 – February 2022)
DROIDIAN PROJECT	Founder and Core Developer (Since February 2020)
LIBRE MOBILE OS	Founder and Core Developer (Since August 2020) <ul style="list-style-type: none">• Complete Bring up of LMODroid, google-free AOSP based Android Firmware• Maintaining Servers, Infrastructure and CI/CD for projects• Providing builds for over 200 active devices• Implemented enterprise app and services for corporates
NAVOTPALA TECH	Core platform Developer (Since September 2024) <ul style="list-style-type: none">• Working on android x86 projects• Developing kiosk launcher for Android• Implemented OTA update support to android-x86• Multi display and touch support on AOSP

+ LANGUAGES

Persian (native)
English
Turkish (beginner)

+ IT PROFESSIONAL SKILLS

Languages: C, C++, Java, Bash, VB.Net, Qbasic, Action Script, Python, PHP, JS, Kotlin
Design: GIMP, Adobe Photoshop, Corel Draw, Adobe Flash
Network: pfsense, Mikrotik
Others: Git, SELinux, Binder, HIDL, AIDL, CMake, Jenkins, Proxmox