

Matanel Pataky

Software Engineer

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SKILLS

Languages:

Rust, C, C++, Python, Java, Go, TypeScript, Dart/Flutter, Kotlin, Bash

Embedded/Automotive:

QNX, Android NDK, Linux, KUKSA/VSS, OTA Systems

Frameworks:

Actix, Tokio, React, Flutter, Apache NiFi

Messaging:

MQTT, gRPC/Protobuf

Databases:

SQLite, RocksDB

DevOps:

Docker, Podman, GitHub Actions, Jenkins, SonarQube, Artifactory

Tools:

VS Code Extensions, GitHub Copilot, CodeSonar

EDUCATION

B.Sc. Computer Science

Hebrew University of Jerusalem

TRAITS

- Quick learner
- Leadership & management
- Team player
- Works well under pressure

SUMMARY

Software engineer with 3+ years at HARMAN, progressing from student developer to SDV platform architect. Expert in Rust, C/C++, Python, and Flutter. Passionate about building developer tools, automation, and clean architecture.

EXPERIENCE

Software Engineer @ HARMAN • Mar 2023 - Present

SDV Platform - Next-Gen Onboard Architecture (Jan 2025 - Present)

- Led development of the Onboard Orchestrator (Rust) - central engine managing software deployment across vehicle ECUs
- Architected Vehicle Twin Manager (Rust) - real-time vehicle data streaming with MQTT and VSS signal management
- Designed dependency-based deployment in Mixed Criticality Orchestrator (Java/NiFi) with fail-fast parallel execution

OTA Update Platform - VDM/SMF Embedded Systems (Mar 2023 - Mar 2025)

- Core developer on Vehicle Device Manager (C/C++) - production OTA client for Android, Linux, QNX
- Designed Multi-Step Rule Engine (MSRE) - configurable engine for complex OTA flows with conditional logic
- Created KPI performance testing suite with parallel execution and HTML reporting

Cross-Platform Mobile - Companion App (Jul 2024 - Aug 2025)

- Developed Vehicle Companion App (Flutter) - cross-platform app for vehicle OTA management
- Achieved comprehensive unit test coverage with LCOV reporting

Technology Consultant (Part-time) @ Private Household • Jan 2025 - Present

- Smart home automation, security systems, and network infrastructure
- Technical support and training for non-technical users

Student Software Engineer (Part-time) @ HARMAN • Jul 2022 - Mar 2023

OTA Update Platform - VDM/SMF Embedded Systems

- Contributed to Vehicle Device Manager (C/C++) - production OTA client for Android, Linux, QNX
- Built hardware inventory collection service with DMA compatibility and state machines
- Implemented log compression with cross-platform support

IT Consultant @ Pool Purity • 2021

- Worked with head of R&D to re-architect day-to-day operations system
- Inventory management and customer orders integration

Commander @ Israeli Navy • 2014 - 2017

- Trained soldiers in technical and leadership skills
- Team management in high-pressure environments

PROJECTS

Choklo - Pet care and medication reminder app (Flutter) with robust notification system, auto-snooze, and structured logging.

AirType - Cross-platform voice-to-text desktop app (Tauri/Rust + Whisper). Global hotkeys, dual language support (EN/HE), 100% offline.

NetStat - Android network speed monitor (Kotlin) with real-time status bar display, speed graphs, and Material You theming.

Active - SDK and CLI for Flutter + Rust SDK integration.