

668 Willowgate St  
Mountain View  
94043, CA

📞 +1 (415) 926 2483

✉ mat-  
tijds.korpershoek@gmail.com

in mattijskorpershoek

🔗 Makohoek

# Mattijs Korpershoek

*Embedded Android/Linux software engineer*

## Summary

I am a software developer passionate in technologies since I was young. Since 2014, I have been working on Android Wear platform development for wearables and delivered the award-winning Tag Heuer Connected watches.

## Technical skills

### *Android*

- Platform development
- Hardware bring-up
- New product enabling
- Product development
- System debugging
- Knowledge from linux kernel to apps (java)

### *Languages*

- C
- C++
- Git
- Python
- Java
- Bash

### *Other*

- Linux kernel & userspace
- Embedded systems
- Operating systems
- Software development
- Manufacturing support
- Spacemacs

## Key accomplishments

### *Audio software stack*

I was the audio software stack owner on Android Wear based products. I have developed and debugged several places in the software stack including DSP firmware, Linux kernel drivers, Audio HALs and apps (java).

### *Custom Android ROM for production line*

Traveled two weeks to China for pre-mass production, on-site troubleshooting and support. Designed and implemented Intel wearable Manufacturing OS (based on Android), for hardware testing on the production line.

### *Platform bring-up*

Traveled one week to the Bay Area for a hard-ware bring-up. Audio stack (with codec, speakers, four microphones) was up in two days and had three more days to make the camera work.

## Work history

### Intel New Device Group

**Android platform engineer, CELAD, San Francisco Bay Area. Feb, 2017 – Current**

- o Android platform engineer on Android Wear products with Intel inside
- o Active during entire product lifecycle from the early schematics to the end-user software releases.
- o Several roles including platform developer, system debugger, and factory line support.
- o Technical skills:
  - Android/Linux device drivers (ASoC), intel platform drivers
  - Android frameworks: audio HALs, other HALs, Treble
  - Android apps: mainly debugging, no development.
  - Production line support, system debugging, hardware bring-ups
  - Linux, C, C++, Java, Git, Python, XML, Bash, Android build system

**Android platform engineer, CELAD, France. Sept, 2014 – Jan, 2017**

- o Android platform engineer on Android Wear products with Intel inside
- o Implemented Android Audio stack (HAL, linux machine driver (ASoC)) for digital microphone (voice recognition)
- o Developed a low-power bluetooth audio playback architecture (A2DP)
- o Designed a custom Android ROM used for mass production testing and quality screening in the factory.
- o Technical skills:
  - Android/Linux device drivers (ASoC framework) and DSP Firmware
  - Android frameworks: audio HAL, AudioFlinger, AudioPolicy
  - Production line support, system debugging, hardware bring-ups
  - Linux, C, C++, Git, Python, XML, Bash, Android build system

## Internships

**Android Audio developer, CELAD, France. Apr, 2014 – Aug, 2014**

- o Open-sourced the Parameter-Framework, a major component of Intel's Android Audio HAL
- o Component is now part of Android AOSP (/external/parameter-framework/)
- o Extended audio stack on Intel phone reference platforms (dual sim)
- o Technical skills:
  - Linux, C, C++ Git, XML, markdown, Android platform

**Windows embedded developer, 24green, The Netherlands. May, 2013 – Aug, 2013**

- o Developed a web (REST) API which handles climate control functions in green-houses.
- o Created apps to illustrate the API.
- o Technical skills:
  - C#, Windows XP embedded
  - javascript, html, CSS, java

**Linux kernel developer, IRIT, France. Apr, 2012 – Jul, 2012**

- o Linux kernel development around performance counters and other hardware metrics
- o Modules developed used by research lab for experiments on CPU frequency (power savings)
- o Real world testing on a French research grid computing network, Grid'5000
- o Technical skills:
  - Linux kernel, device drivers, C, GNU make, Bash

## Education

**Paul Sabatier University, Toulouse, France, CAMSI (Informatics, Systems and Machine Architecture Concepts), Master's degree. 2009 – 2014**

- o rank 1/18 (Valedictorian)
- o overall score > 85%