

# Mattijs Korpershoek

*Embedded linux/android software engineer*

668 Willowgate St Unit A  
Mountain View  
94043 CA

✉ [mattijs.korpershoek@gmail.com](mailto:mattijs.korpershoek@gmail.com)

 [mattijskorpershoek](https://www.linkedin.com/in/mattijskorpershoek)

 [Makohoek](https://github.com/Makohoek)

Born: 01/11/1990

---

## Education

- 2013 – 2014 **5<sup>th</sup> year computer science: Master degree CAMSI (Informatics, Systems and Machine Architecture Conception, Paul Sabatier University(UPS) (Shanghai rank: 201-300), Toulouse, rang 1/18.**  
with honours: score > 85%
- 2012 – 2013 **4<sup>th</sup> year computer science: CAMSI, UPS, Toulouse, rank: 1/6.**  
with honours: score > 75%
- 2011 – 2012 **3<sup>th</sup> year fundamental computer science: Bachelor degree, UPS, Toulouse, rank: 4/76.**  
with honours: score > 75%
- 2010 – 2011 **2<sup>nd</sup> year fundamental computer science, UPS, Toulouse, rank: 7/67.**  
with honours: score > 75%
- 2009 – 2010 **1<sup>st</sup> year fundamental science, UPS, Toulouse.**
- 2008 – 2009 **French Baccalauréat of science, Lycée Léo Ferré, Gourdon.**

---

## Experience

- February, 2017 – present **Linux/Android R&D for Intel New Device Group, CELAD, San Francisco Bay Area, USA.**
- Android/Linux drivers, Android Framework / HALs
  - Production line support, system debugging, hardware bring-ups
  - C, C++, Java, Git, Python, XML, Bash, Android build system
  - Emacs, Vim, tmux, bash, awesome WM
- February, 2015 – January, 2017 **Linux/Android R&D for Intel New Device Group, CELAD, Toulouse, France.**
- Android/Linux drivers (ASoC framework)
  - Android audio HAL, communication with AudioFlinger/AudioPolicy
  - C, C++, Git, Python, XML, Bash, Android build system
  - Vim, tmux, bash, awesome WM
- September, 2014 – January, 2015 **Linux/Android R&D for Intel Audio team, CELAD, Toulouse, France.**
- Android/Linux drivers and HAL
  - DSP firmware
  - C, C++, Git, Python, Bash, XML, Android build system
  - Vim, tmux, bash, awesome
- April, 2014 – August, 2014 **Internship: software developer focused on middleware/opensourcing, CELAD, Toulouse, France.**
- Linux, Android middleware and audio HAL
  - Agile software development (scrum)
  - Pair programming, Test Driven Development
  - Git, GitHub, C++, Python, Bash

- May, 2013 – **Internship: embedded and web development**, *24green at Hoogendoorn*, Vlaardingen, August, 2013 The Netherlands.
- Implemented Web API working with their product: 24aqua
  - Web+Android applications to illustrate that API
  - Add new controls to 24aqua and extended API to support it
  - Automatic configuration scripts for 24aqua
  - Microsoft .NET framework, C#, HTML, SQL, MVC 4.5
  - Agile working (scrum), Test Driven Development
- April, 2012 – **Internship: kernel development**, *IRIT in team SEPIA*, UPS Toulouse, France.
- July, 2012
- Governor (DVFS) for the GNU/Linux kernel
  - Research about memory allocation
  - Energy optimisation via software
  - Kernel/System programming in C
  - Bash scripts for testing benchmarks
  - Wide scale testing on Grid'5000, a french research grid computing network
  - Documentation and tutorials in L<sup>A</sup>T<sub>E</sub>X
- January, 2013 – **Project: computer graphics**, *Implementation of 2 real-time anti-aliasing algorithms*, April, 2013 UPS Toulouse, France.
- Post-processing algorithms
  - Implemented in an existing 3D engine: VortexEngine
  - Enhanced Sub-pixel Morphological Anti-Aliasing (SMAA)
  - Joint Bilateral Up-sampling (JBU)
  - Written in C++ with OpenGL, GLSL on QtCreator
  - State-of-art about anti-aliasing algorithms
  - Based on a research of 15 papers from various authors from the scene
- February, 2013– **Project: distributed computing**, *Implementation of a DHT based on the Chord* April, 2013 *algorithm*, UPS Toulouse, France.
- Distributed Hash Table: one node of the network can handle multiple keys of the table
  - Peer 2 Peer algorithm, optimized for the least network usage
  - Written in Java with RMI on Eclipse
- October, 2012 – **Project: TCP/IP networks**, *Created a P2P file sharing system*, UPS Toulouse, France. January, 2013
- TCP/IP, socket programming in Java.
  - File splitting in multiple blocks which are send via the network and shared by the users
  - Multi-threaded client with multiple parallel downloads
  - Support for continuing paused downloads, even multiple hours after pausing
  - Written in Java with Sockets only on Eclipse

## Technical skills

Imperative	C, GLSL*, CUDA	Script	Bash, Python*, Powershell*, Matlab
Object oriented	C++, Java, C#	Declarative	SQL, Prolog
Web	jQuery, HTML5, CSS3	Mobile	Android, jQuery Mobile
Functional	OCaml	APIs	Google Calendar*, OpenGL
Conception	Design Patterns, UML	Organisation	Agile working, Pair Programming, TDD
System	VHDL, ARM assembly, POSIX threads and memory sharing, process scheduling, cache algorithms, RISC pipeline techniques	Networking	C and Java sockets, RMI(Java), TCP/IP, CAN
OS	Linux(Debian), Windows	Office	LaTeX, Office, Google docs
IDEs	Emacs, Vim, Visual Studio, WebStorm, Eclipse, QtCreator, IntelliJ IDEA	Tools	git, svn, tfs, sharepoint

(\*) self learned

---

## Languages

Dutch	<b>bilingual</b>	<i>mother tongue</i>
French	<b>bilingual</b>	<i>lived in France between 2000 - 2017</i>
English	<b>fluent</b>	<i>Living in USA snice 2017</i>
German	<b>4 years experience</b>	<i>2 student exchanges of 2 weeks each and learned at school</i>

---

## Hobbies

Music	Playing acoustic guitar since 2007
Sport	Climbing (indoors) twice a week since 2014