

Mattijs Korpershoek

Embedded Linux/Android software engineer

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📍 Makohoek
Born: 01/11/1990

Education

- 2013 – 2014 **5th 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 **4th year computer science: CAMSI, UPS, Toulouse, rank: 1/6.**
with honours: score > 75%
- 2011 – 2012 **3th year fundamental computer science: Bachelor degree, UPS, Toulouse, rank: 4/76.**
with honours: score > 75%
- 2010 – 2011 **2nd year fundamental computer science, UPS, Toulouse, rank: 7/67.**
with honours: score > 75%
- 2009 – 2010 **1st year fundamental science, UPS, Toulouse.**
- 2008 – 2009 **French Baccalauréat of science, Lycée Léo Ferré, Gourdon.**

Experience

- 01/02/2015 – **Linux/Android R&D for Intel New Device Group, CELAD, Toulouse, France.**
current
 - 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
- 15/09/2014 – **Linux/Android R&D for Intel Audio team, CELAD, Toulouse, France.**
31/01/2015
 - Android/Linux drivers and HAL
 - DSP firmware
 - C, C++, Git, Python, Bash, XML, Android build system
 - Vim, tmux, bash, awesome
- 03/04/2014 – **Internship: software developer focused on middleware/opensource, CELAD,**
29/08/2014 Toulouse, France.
 - Linux, Android middleware and audio HAL
 - Agile software development (scrum)
 - Pair programming, Test Driven Development
 - Git, GitHub, C++, Python, Bash
- 06/05/2013 – **Internship: embedded and web development, 24green at Hoogendoorn, Vlaardingen,**
09/08/2013 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

- 16/04/2012 – **Internship: kernel development**, *IRIT in team SEPIA*, UPS Toulouse, France.
- 13/07/2012
- 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^AT_EX
- 08/01/2013 – **Project: computer graphics**, *Implementation of 2 real-time anti-aliasing algorithms*,
26/04/2013 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
- 10/02/2013 – **Project: distributed computing**, *Implementation of a DHT based on the Chord*
20/04/2013 *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
- 08/10/2012 – **Project: TCP/IP networks**, *Created a P2P file sharing system*, UPS Toulouse, France.
15/01/2013
- 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
- 01/10/2012 – **Project: Multimedia**, *Audio/Video player with GStreamer*, UPS Toulouse, France.
28/10/2012
- Multi-format audio/video player
 - Can play the video in ascii art
 - Command line options to alter video signal such as: contrast, gamma correction
 - Written in C with GStreamer library on Vim

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	Vim, Visual Studio, WebStorm, Eclipse, QtCreator, IntelliJIDEA	Tools	git, svn, tfs, sharepoint
(*)	self learned		

Languages

Dutch	bilingual	<i>mother tongue</i>
French	bilingual	<i>living in France since 2000</i>
English	fluent	<i>reading often, watching TV series and films in English, presentations</i>
German	4 years experience	<i>2 student exchanges from 2 weeks each and learned at school</i>

Hobbies

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