Mattijs Korpershoek

Embedded Linux/Android software engineer

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in *mattijskorpershoek*
⊕ *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 1^{rst} **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 – August, 2013	**Internship: embedded and web development**, *24green at Hoogendoorn*, Vlaardingen, 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 – July, 2012	**Internship: kernel development**, *IRIT in team SEPIA*, UPS Toulouse, France.

- 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 LaTeX

January, 2013 – April, 2013	**Project: computer graphics**, *Implementation of 2 real-time anti-aliasing algorithms*, 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– April, 2013	**Project: distributed computing**, *Implementation of a DHT based on the Chord 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 – January, 2013	**Project: TCP/IP networks**, *Created a P2P file sharing system*, UPS Toulouse, France.

- 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, IntellijIDEA	Tools	git, svn, tfs, sharepoint

(*) self learned

Languages

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

Hobbies

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