

Mattijs Korpershoek

Embedded Linux/Android software engineer

668 Willowgate St Unit A
Mountain View
94043 CA
✉ mattijs.korpershoek@gmail.com
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 **1st 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/opensource, 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^AT_EX
- 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

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|-----------------|--|--------------|--|
| 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

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|---------|---------------------------|--|
| 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

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