

Jan Christoph Uhde

Diplom Informatiker

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As you think, so shall you become.

Experience

- Jul 2016 – Today **Senior Software Engineer**, *ArangoDB GmbH*, Cologne
- Implemented server side binary networking protocol (up to 60% speed-up)
 - Created C++ and JavaScript database drivers (using boost.asio and Node.js nan)
 - Created JSON-Schema validation (C++, JavaScript)
 - Implementation of the OneShard Feature (C++, JavaScript)
 - Improved several optimizer rules
 - Helped creating the new RocksDB storage backend
 - Added access to geo-index to query language
 - Implemented cluster selectivity estimates
 - Provided clang-tidy and format containers
 - Worked on internal build system (CMake, docker, Python, fish)
- Aug 2013 – Jul 2016 **Software Engineer**, *ModuleWorks GmbH*, Aachen
- Designed and developed an NC-code posting-framework (Python)
 - Ported C++ main libraries from Windows to Linux (gcc/gdb)
 - Worked on algorithms in path-planning core (Visual C++)
 - Added Linux support to in-house buildsystem (Python/CMake/Bash/Batch)
 - Virtualization of Linux servers (QEMU/Puppet)
- Nov 2012 – Aug 2013 **Research Assistant**, *ModuleWorks GmbH*, Aachen
- Cross-compiled libraries from x86 to ARM (crosstool-ng)
- Feb 2009 – Jun 2010 **Research Assistant**, *Fraunhofer-Institut für Lasertechnik (ILT)*, Aachen
- Development of tools for creation, analysis and playback of highspeed videos. (C++, OpenCV, wxWidgets)

Education

- Mar 2005 – May 2013 **Study of computer science (Diplom)**, *RWTH Aachen University*, Aachen
Thesis: Optimization of Discrimination Networks (Prof. Dr. Matthias Jarke)

Skills

- programming languages C++ (stl/boost/gtest), Python, Bash, JavaScript
- operating systems GNU/Linux, Windows, OSX
- tools GCC, Clang, Make, CMake, GDB, Git
Qemu, Docker, iptables, Apache, Puppet, systemd

Additional Information

- languages German (native), English (fluent)
- interests C++ user groups (Aachen, Düsseldorf, Cologne), Project Euler

References

- ModuleWorks Dr. Sven Odendahl <sven@moduleworks.com> – last direct supervisor
Dipl.-Ing. Dipl.-Inform. Lothar Glasmacher <lothar@moduleworks.com>
- Personal Prof. Dr. Sebastian Siebertz <siebertz@uni-bremen.de>
Maksim Arutyunyan <marutyunyan@google.com>