

# Nicolas Morey-Chaisemartin

*Senior Linux Developer*

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29/06/1986

## Work Experience

- March 2017 **Senior Linux Developer**, *SUSE*, Home Office.  
upto now
- Centralize, package and support **Infiniband and Omni-Path** userspace tools and HPC libraries
  - Develop testsuites for Software/Hardware validation.
  - Customer feature developments and support
  - Environment: RPM, OBS, Infiniband, Omni-Path, Networking, MPI.
- April 2015 **Network solutions manager**, *Kalray*, Montbonnot.  
upto March 2017
- Conception of a 80Gb/s smartNIC product
  - Port and optimization of **OpenDataPlane** on MPPA.
  - Management of a 5 engineer team
  - **High-speed PCI and Ethernet** interfaces support
  - In charge of all Linux drivers: **PCI, netdev, AF ALG, crypto, RoCE, DPDK**
  - Environment: MPPA, C, ODP, Ethernet, PCI, **Linux Drivers**.
- July 2013 **Video solutions manager**, *Kalray*, Montbonnot.  
upto April 2015
- Design and development of a flexible **HEVC** core encoder optimized for MPPA
  - Technical leader and management of a small development team
  - Port, parallelization and optimization of MainConcept 4K **HEVC** encoder on MPPA
  - Environment: MPPA, C, C++, Ruby, Parallel programming, HEVC.
- July 2009 **Embedded software architect and developer**, *Kalray*, Montbonnot.  
upto July 2013
- Development of an embedded operating system and runtime libraries.
  - Development of a front-end **compiler** for a highly parallel streaming language.
  - Development of **scheduling, placing and routing** tools for streaming applications
  - In charge of **continuous integration** using Git/Hudson.
  - IT Co-administrator.
  - **Agile/Scrum** Project Management.
  - Environment: **Embedded systems**, MPPA, C, Assembly, Ruby, Parallel programming.
- Octobre 2008 **Embedded System Engineer**, *Coframi*, Meylan.  
upto July 2009
- Consulting for Bull in the R&D HPC Team: **Infiniband** expert.
  - Development of fault-tolerant **routing algorithms** (patents).
  - Development of network monitoring solutions for large clusters.
  - Environment: Infiniband, Routage, QoS, **Linux drivers, HPC**.
- May 2008 **MSc Project**, *Northumbria University*, Newcastle, UK.  
upto
- Design and development of a **hard real-time micro-Kernel** for the Cell Broadband Engine.
- Septembre 2008
- Environment: **Multicore, Real-Time, Scheduling**, Synchronization, C, Assembly.
- June 2007 **IT Intern**, *Allibert-Trekking*, Montmélian.  
upto August 2007
- User and server support on a Mac OS X infrastructure.
  - Deployment of **monitoring tools**.
  - Development of synchronization tools between inventory, administration and monitoring tools.
  - Environment: Mac OS X, Php, Perl, Python, Bash, MySQL, openDirectory.
- January 2007 **Junior-Entreprise Consultant**, *MVA Limited*, Grenoble.
- Development of a GPS coordinate extraction tools using Google Maps.
  - Environment: **Java**, Swing.
- Octobre 2006 **Junior-Entreprise Consultant**, *Institut Laue-Langevin*, Grenoble.
- Porting of an objective-C crystallography demonstration application to Java.
  - Environment: Java, Swing, HTML.

- August 2003 **Intern**, Xyalis, Grenoble.  
 - Development of **non-regression tools** for Xyalis complete software suite.  
 - Environment: Bash, Tcl, Tk.

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## Education

- 2008 **Computing Science Engineer**, ENSIMAG, Grenoble.  
 2008 **MSc in Embedded systems**, Northumbria University, Newcastle, UK.  
 - In parallel of the third year at ENSIMAG..

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## Personal Experience

- 2008 **Contributions to Open Source projects.**  
 upto Today - Contribution to mailing list and development of **Linux**, **Git**, OpenSM, ODP.  
 - Occasional involvement in various projects: Sick-Beard, RBTools, libdbi...
- 2011 **Damage (DAtabase MetA GEnerator).**  
 upto Today - Development of a script toolset for custom database generation.  
 - Generates a complete access and modification API for C, Java, Ruby to XML/YAML/Binary databases from a simple YAML description.  
 - Environnement: Ruby, GPL.
- 2006 **Participation to IBM Cell B.E. Contest.**  
 - Development of a generic Open Source *producer/consumer* framework for Cell clusters.  
 - Environment: C++, sockets.
- 2005 **IT Administrator of N'Sigma, ENSIMAG Junior-Entreprise.**  
 upto 2007 - Administration of a mixed Linux/Windows network.  
 - Participation to cost assessments of N'Sigma contracts.

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## Skills

### Computer

Languages	<b>C</b> , <b>Ruby</b> , Java, Assembly, Ada, Php, C++, MPI	Graphical Environment	<b>X11</b> , <b>Gtk</b> , <b>Tk</b> , <b>Swing</b> , <b>Qt</b>
Tools	Emacs, Netbeans, Eclipse, gcc, <b>gdb</b>	Video	<b>H.265</b> , x265
Operating Systems	<b>Kernel</b> , <b>Parallel programming</b> , <b>Drivers</b> , Signals, RPM packaging	Version control	<b>Git</b> , <b>Gitolite</b> , <b>Jenkins</b> , OBS, CVS, SVN, SCCS
System Administration	<b>Linux</b> , FreeBSD, Samba, Postfix, Apache, Shell scripting, Bash, Sed, Awk	Networking	Routage, TCP/IP, Ethernet, <b>Sockets</b> , <b>QoS</b> , <b>Infiniband</b> , <b>Omni-Path</b> , ODP
Databases	<b>SQL</b> , <b>Oracle</b> , <b>MySQL</b> , <b>LDAP</b> , <b>Design</b> , Optimisation	Mathematic Tools	Matlab, CoinOR, GPLK

### Languages

- French **Native speaker**  
 English **Bilingual**

TOEFL Score:100/120

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## Patents

- WO2011001362 Methods and devices for evaluating interconnection efficiency of parallel computer networks based upon static routing schemes
- WO2011151569 Method of pseudo-dynamic routing in a cluster comprising static communication links and computer program implementing this method
- WO2011144848 Method of optimizing routing in a cluster comprising static communication links and computer program implementing this method

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## Others

- Hobbies Mountains, photography, traveling, guitar.  
 Sport Mountaineering, rock climbing, hiking, ski and ski touring.