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INSA Engineer  
Debian Developer

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## PROFILE

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As a computer engineer, I enjoy working on innovative and challenging projects, finding the best possible solutions to complex issues.

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## WORK EXPERIENCE

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Since Aug. 2009 **INTM** Lyon  
*OpenSource systems engineer* <http://www.intm.fr>

- Developed a custom Debian-based Linux distribution aimed at scientific computing
- Developed and maintained deployment and management tools
- Provided general Linux and OpenSource expertise on various projects

Feb. - Aug. 2008 **BT Infrastructures Critiques** Lyon  
*Datacenter tooling engineer* <http://www.bt.com/france>

- Developed custom multi-NOC monitoring tools, based on Nagios and other OS tools
- Deployed and managed custom monitoring platforms for specific client needs
- Integrated new monitoring tools with existing datacenter tools

2005 – 2007 **Linbox FAS** Metz  
*Product manager* <http://www.linbox.com>

- Conceived the LIPS IP telephony solution, based on Asterisk
- Conceived the multi-sites and redundant architectures for the LIPS solution
- Integrated (CTI) Open-XChange and Asterisk
- Designed robust & reliable network and services architectures
- Wrote end-user and technical documentation
- Acted as the customer interface, handling feedback and feature requests

2004 **Sirius Technologies** Metz  
*Software development engineer* <http://www.siriustech.org>

- Conceived an all-in-one, turn-key server solution running on Linux
- Conceived an automatic deployment platform for the products (Debian & FAI)
- Started a value added, managed hosting offer in datacenter

Since 2000 **Debian Project**  
*Debian Developer (volunteer work)* <http://www.debian.org>

- Developing the Debian GNU/Linux free (libre) operating system
- Maintaining software packages in the form of Debian packages
- Quality assurance, bug fixes, integration, documentation, ...

## SKILLS

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Systems	More than 10 years of experience with Unix-like operating systems (esp. Debian), storage & backup systems, monitoring, SSO
Networks	Advanced network architectures using routing protocols (BGP, OSPF), load balancers and failover switches, firewalls and VPN gateways, QoS
Services	Standard Internet services, VoIP (SIP, Asterisk), PostgreSQL, PgCluster, Oracle, MySQL
Development	On Unix-like and embedded platforms (VxWorks, ...) using low-level and high-level languages (assembly language, C, C++, Objective-C, Perl, PHP, Java, SQL, PL/SQL, Shell, ...) Wrote device drivers and kernel code.

## EDUCATION

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2004-2007	<b>National Institute of Applied Sciences (INSA)</b>	Lyon
	Master of Engineering in computer engineering (Diplôme d'Ingénieur)	
2002-2004	<b>University of Franche-Comté</b>	Belfort
	Bachelor of Engineering in computer engineering (Diplôme Universitaire de Technologie)	

## LANGUAGES

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- French (mother tongue)
- English (fluent, scored 955/990 on the TOEIC test)

## LECTURES

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March, 2004	<b>ENS Cachan</b>	Paris
	Topic: <i>The Debian Project, goals, history and day to day operations</i>	
February, 2004	<b>Solutions Linux Exhibition &amp; Conference</b>	Paris
	Topic: <i>Simplified park management using package management systems</i>	
	Topic: <i>The Debian Project, goals, history and day to day operations</i>	

## MISCELLANEOUS

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- President, founding member of the Association Debian France (<http://france.debian.net>)
- Contributing member of Software in the Public Interest, Inc. (<http://www.spi-inc.org>)

## REFERENCES

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Available upon request.

### **Development of a Debian-based Linux distribution aimed at scientific computing**

Development and maintenance of the CALIBRE Linux environment for scientific computing at EDF (world's largest utility company) for workstations and clusters, based on the Debian GNU/Linux distribution. Integration of varied software and tools as requested by the customers. Development of the automatic deployment platform, management and production of the installation medias. Provided expert-level support to the customers' support teams. Provided general Linux and OpenSource expertise on various projects.

Environment	Debian, FAI, Python, Perl, shell	
Links	Debian	<a href="http://www.debian.org">http://www.debian.org</a>
	FAI	<a href="http://www.informatik.uni-koeln.de/fai">http://www.informatik.uni-koeln.de/fai</a>

### **Vigilo monitoring platform deployment and GLPI integration**

Deployment of a Vigilo monitoring platform for 200 hosts and 500 networking equipments. Development of various fixes to Vigilo in several key areas: configuration manager (confmgr), event correlator (SEC, corr sup), visualization (NagVis, supnavigator) and architectural fixes. Integration of the GLPI asset management solution as a source for Vigilo configuration data (hosts, basic host information, ...). Development of Nagios and Vigilo monitoring scripts (Nagios plugins, Vigilo SNMP Collector configuration). Development of a replacement heavy-client (client/server) alarm dashboard in lieu of Vigilo's web-based DashBoard. Integration of the Vigilo platform into the existing monitoring platform for configuration input and alarm transmission.

Environment	Debian, Vigilo, SEC, cfengine, Nagios, NagVis, GLPI, SNMP, networking, SQL, Python, Perl, shell	
Links	Debian	<a href="http://www.debian.org">http://www.debian.org</a>
	Vigilo	<a href="http://www.projet-vigilo.org">http://www.projet-vigilo.org</a>
	SEC	<a href="http://simple-evcorr.sourceforge.net">http://simple-evcorr.sourceforge.net</a>
	cfengine	<a href="http://www.cfengine.org">http://www.cfengine.org</a>
	Nagios	<a href="http://www.nagios.org">http://www.nagios.org</a>
	NagVis	<a href="http://www.nagvis.org">http://www.nagvis.org</a>
GLPI	<a href="http://www.glpi-project.org">http://www.glpi-project.org</a>	

### **Conception and development of the Linbox IP Telephony Solution (LIPS)**

Conception and development of an Asterisk-based IP Telephony solution, integrated into Linbox' infrastructure package. Design of the solution, software architecture and network topology, choice and integration of the software components, choice of the hardware components (servers, IP phones, IP DECT, ISDN interfaces, GSM gateways, PoE midspans, ...). Design of the Asterisk dial plan and dynamic inter-site call routing. Design of the fault-tolerant and load-sharing cluster architectures. Development of the configuration agent and web interface integrated into the Linbox Management Console. Definition of the commercial offerings and marketing documents. Preparation and execution of on-site deployments. Responsible for the solution as Product Manager.

Environment	Debian, Asterisk, Kamailio (OpenSER), iaxmodem, HylaFax, networking (routing, DHCP/BOOTP, ...), SIP, IAX, DUNDi, ISDN, DECT, PostgreSQL, OpenLDAP, Apache, HeartBeat, XML-RPC, Python, Perl, PHP, shell	
Links	Debian	<a href="http://www.debian.org">http://www.debian.org</a>
	Asterisk	<a href="http://www.asterisk.org">http://www.asterisk.org</a>
	Kamailio	<a href="http://www.kamailio.org">http://www.kamailio.org</a>
	iaxmodem	<a href="http://iaxmodem.sf.net">http://iaxmodem.sf.net</a>
	HylaFax	<a href="http://www.hylafax.org">http://www.hylafax.org</a>
	PostgreSQL	<a href="http://www.postgresql.org">http://www.postgresql.org</a>
	OpenLDAP	<a href="http://www.openldap.org">http://www.openldap.org</a>
	Apache	<a href="http://httpd.apache.org">http://httpd.apache.org</a>
	HeartBeat	<a href="http://www.linux-ha.org/Heartbeat">http://www.linux-ha.org/Heartbeat</a>

### **FirstClass reverse-engineering and email migration**

Reverse-engineering of the FirstClass groupware on-disk storage. Extraction of emails from FirstClass' on-disk storage, along with users' address books and mailing-lists. Regeneration of well-formed emails from the FirstClass data. Migration of the emails to a new groupware through an IMAP-to-IMAP synchronization process via a dedicated migration server (Courier IMAP). Data volume: 300 GB.

Environment	Debian, mailsync, Courier, IMAP, Perl, shell	
Links	Debian	<a href="http://www.debian.org">http://www.debian.org</a>
	mailsync	<a href="http://mailsync.sf.net">http://mailsync.sf.net</a>
	Courier	<a href="http://www.courier-mta.org">http://www.courier-mta.org</a>

### **Fault-tolerant VPN design**

Design of a fault-tolerant OpenVPN-based VPN architecture for an industrial client. Star-like network topology with two cores, primary and backup. Internal routing announcements using OSPF.

Environment	Debian, OpenVPN, Quagga, networking, OSPF	
Links	Debian	<a href="http://www.debian.org">http://www.debian.org</a>
	OpenVPN	<a href="http://www.openvpn.net">http://www.openvpn.net</a>
	Quagga	<a href="http://www.quagga.net">http://www.quagga.net</a>

### **Open-XChange and Asterisk click'n'dial integration**

Development of a click'n'dial feature for Open-XChange in an Asterisk VoIP context. Integration of the click'n'dial feature into Open-XChange's address book.

Environment	Debian, Open-XChange, Asterisk	
Links	Debian	<a href="http://www.debian.org">http://www.debian.org</a>
	Open-XChange	<a href="http://www.open-xchange.com">http://www.open-xchange.com</a>
	Asterisk	<a href="http://www.asterisk.org">http://www.asterisk.org</a>

### **One-way Active Directory to OpenLDAP accounts synchronization (w/ passwords)**

Development of a one-way accounts synchronization method between a master Active Directory tree and a slave OpenLDAP tree. Synchronization included user accounts and their passwords and a number of attributes.

Environment    Debian, OpenLDAP, Perl, shell  
Links            Debian            <http://www.debian.org>  
                  OpenLDAP        <http://www.openldap.org>

### **Fully automatic deployment platform**

Development of a fully automatic deployment platform for a turn-key server solution. Development of the scripts and configurations for FAI.

Environment    Debian, FAI, networking (DHCP/BOOTP)  
Links            Debian            <http://www.debian.org>  
                  FAI                <http://www.informatik.uni-koeln.de/fai>

### **All-in-one turn-key server solution**

Development of an all-in-one turn-key server solution targeted at SMBs and workgroups within organizations. Integration of various software components for file serving, file sharing, email, backups and more. Development of the web-based management interface.

Environment    Debian, Samba, Apache, Qmail, ClamAV, SpamAssassin, Perl, PHP, shell  
Links            Debian            <http://www.debian.org>  
                  Samba            <http://www.samba.org>  
                  Apache          <http://httpd.apache.org>  
                  Qmail            <http://www.qmail.org>  
                  ClamAV          <http://www.clamav.org>  
                  SpamAssassin   <http://spamassassin.apache.org>