

Bernard Cafarelli

Associate Manager, Software Engineering

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born on 1981/04/27 — Driving license

*Master's Degree in Computer Engineering
"Ingénieur de spécialité de l'École des Mines de Paris"*

Professional experience

- September 2021–current **associate manager, software engineering**, Red Hat, Paris.
- October 2020–September 2021 **principal software engineer**, Red Hat, Paris.
- May 2016–September 2020 **senior software engineer**, Red Hat, Paris.
Member of the Network team. Development of networking features in OpenStack Neutron, Octavia and Service Function Chaining
- March 2007–current **developer**, Gentoo foundation.
Package maintainer for NX remote server, GNUstep, chromium web browser, llvm/clang, FTP servers, . . .
- January 2012–April 2016 **software architect**, DenyAll, Sèvres.
Worked on Protect, an Apache-base web application firewall:
 - new versions planning, development monitoring and deployment
 - new features development (on-the-fly SSL certificates generation, logs configuration and scaling, added support for WebSocket and RPC over HTTP protocols, . . .)
 - development and optimization of a command line interface (based on a SOAP API)
 - industrialization, hardening and maintenance of DAOS, a CentOS-based system used for DenyAll ProductsDesign and development of a cloud-based (SaaS) security solution, www.cloudprotector.com:
 - designing the new software architecture
 - setting up an automated management interface compatible with multiple IaaS providers (AWS, Openstack, vCloud)
 - infrastructure deployment automation (Ansible)
 - integration and adaptation of DenyAll products
- October 2006–December 2011 **R&D engineer**, StreamWIDE, Paris.
StreamWIDE Engine development (core technology), providing signaling and media handling capabilities for VoIP solutions (voice mail, prepaid, Ring back tone, . . .):
 - new modules design and implementation (Radius, Diameter, legal intercept)
 - new SIP features (SIP over TCP, RFC 4028 session timers)
 - reliable communication between Engine and VoIP applicationsDevelopment of mobile applications integrated with StreamWIDE software:
 - Android application development for Visual Voicemail (OMTP standard)
 - Apple iOS applications development (iPad visual voicemail, iPhone advanced greetings)
- May 2004–October 2006 **R&D engineer**, StreamCore System, Puteaux.
 - embedded network systems creation, working on: Linux system, C/C++ kernel modules
 - TCP/IP streams analyzer engine development (RTT statistics, . . .)
 - worked on the centralized management server (Linux, shell, Perl+PHP)
 - updated the software packaging system (automated installations and updates, . . .)
- May 2003–September 2003 **intern**, Centre National d'Équipement Nucléaire (EDF), Montrouge.
specification and modeling of a CAD engineering application

May 2002–May 2003 **network administrator**, *School students' network*, Saint-Étienne.
new network deployment and maintenance

Academic background

- 2003-2005 **Master's Degree**, *Institut supérieur d'Informatique et d'Automatique (ISIA)*.
A two-year post-graduate program leading to the Master's Degree called "Ingénieur de Spécialité de l'École des Mines de Paris".
Includes a 3-weeks software conception and development project (based on the P2P platform JXTA)
- 2001-2004 **Master's Degree**, *École Nationale Supérieure des Mines de Saint-Étienne en Rhône-Alpes*.
National Graduate Management and Engineering School, Master's Degree, oriented on general formation, with second year major in computer science

Technical expertise

Computers

- Systems
- GNU/Linux (Gentoo, RedHat/CentOS, Ubuntu/Debian)
 - Unix (Solaris)
 - Windows, MacOS X
- Languages
- experienced in C, C++, script shell, Java
 - common use of Python, PHP
 - notions in Perl, SQL
- Cloud computing
- Amazon Web Services (AWS): EC2 deployments, boto SDK
 - OpenStack: Nova, Neutron, REST API
 - vCloud Director: pyvcloud SDK
- Development tools
- git, mercurial, SVN, CVS
 - Makefiles and compilation scripts writing
 - Docker, Ansible
 - vim, Eclipse
- Project management
- agile software development (SCRUM)
 - Bugzilla, Jira, Trac, Redmine
- Mobile phones
- Android (1 year)
 - iOS/Objective-C (4 months)

Foreign languages

English	bilingual	<i>TOEIC score: 980 out of 990</i>
French	native speaker	
Spanish	average	<i>Diploma Básico DELE B2 (Instituto Cervantes)</i>
Italian	beginner	

Miscellaneous, interests

- Sports Scuba diving (french FFESSM level 1), swimming
- Hobbies technology intelligence, Open Source contributor
reading (science-fiction, historical novels)