

# Jean-Charles Quillet

SENIOR SOFTWARE DEVELOPER · DESKTOP APPLICATION/C++ · SIMULATION SOFTWARE

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## Main experience

### Alyotech/Scalian

Rennes

DESKTOP SOFTWARE DEVELOPER FOR A SUBCONTRACTOR COMPANY

Since 04/2007

- Developing simulation software in the department Simulation, HPC and Virtual Reality
- Technical lead/Mentoring
- Technical documentation writing
- Clients: french MoD, ONERA, CEA, CNES, IRSN

### Typical projects

STELLAR FOR THE CNES (FRENCH SPACE AGENCY)

10/2014 - 06/2015

- Industrialized and extended a performance estimation tool for a satellite phone telecommunication system
- Technical environment: Windows/Linux, Python, PyQt

GENE3/EDGE FOR THE ONERA (FRENCH ELECTROMAGNETIC LAB)

04/2012 - 09/2014

- Developed a radar simulation software
- Interfaced the software with the simulation running in Matlab
- International context: technical documentation writing and presenting our work to the final clients in Singapore
- Technical environment: Windows, C++, Qt, Qwt, Marble, OpenStreetMap, boost, Matlab, gdal, proj4

OVNI FOR THE FRENCH MoD

11/2009 - 08/2010

- Developed a generic software for visualizing simulation results
- Specified and realized an extensible architecture based on plugins
- Interfaced the software with the scripting language Python
- 3D scenario and 2D graphics visualizations
- Technical environment: Windows/Linux, C++, Qt, Qwt, OpenSceneGraph, boost, Python, ffmpeg

SMAART FOR THE FRENCH MoD

07/2007 - 12/2007

- Developed a simulation of surveillance of an airbase using a swarm of drones using a multi agent system
- Technical environment: Eclipse, Java, bash, gnuplot

## Skills

**Main skills:** Architecture and software design  
Desktop application programming  
Object oriented programming  
Functional programming  
Geographic information systems  
Geometry and 3D rendering  
Linux systems

**Operating systems:** Windows, Linux (CentOS, ArchLinux, Debian, Ubuntu)

**Programming languages:** C/C++, Python, Haskell, Elm, Perl, Bash, Matlab, Java

**Libraries:** boost, Qt, Qwt, OpenSceneGraph, gdal, proj4

**Development tools/Continuous integration:** Visual C++, GNU make, GIT, SVN, gprof, Jenkins, Travis, Docker

**Scientific tools:** Matlab, Octave, gnuplot

**Documentation:** doxygen,  $\text{\LaTeX}$

**Languages:** French: mother tongue, English: fluent, Espagnol: beginner

## Extracurricular Activity

**Sports:** Rock climbing, bike commuting, surf, trekking

**Culture:** Literature (classical, travel, adventure), cinema, attending rock concerts, guitar playing

**Community commitments:** Member of the direction comity of the rock climbing club of Rennes (2012 to 2016)  
Volunteered at concert venues of Rennes: Antipode (2011 to 2015), le Jardin Moderne (2009 to 2010)  
Volunteered to the music festivals Epipapu (2009, 2010) and la Route du Rock (2008 - 2018)

**Travel:** New-Zealand, Australia, USA, Canada, Malaysia, Bali, Bolivia, Iceland, Norway, Scotland, Faroe Islands

## Education

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2001 - 2002	<b>DESS Multimedia and Information Technology</b> Image synthesis and analysis, 3D geometry and rendering, sound, video	<i>Bordeaux university</i>
1999 - 2000	<b>Master in computer science</b> Option image synthesis	<i>Poitiers university</i>
1998 - 1999	<b>B.S. in computer science</b>	<i>Limoges university</i>
1996 - 1997	<b>DEUG computer science and mathematics</b>	<i>Limoges university</i>
1995 - 1996	<b>Baccalauréat Science</b>	<i>Lycée Jean Giraudoux, Châteauroux</i>

## Previous experiences

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### LaBRI Analysis and indexing video team (University lab)

*Bordeaux*

#### RESEARCH ENGINEER

*07/2006 - 08/2006*

- Prepared the video indexing contests TRECVID and ARGOS
- System administration
- Technical environment: Linux, C/C++, XML, Perl, Bash, SVN

### INRIA IPARLA team (French IT lab)

*Bordeaux*

#### RESEARCH ENGINEER

*09/2004 - 04/2006*

- Visualization of city models on mobile devices thought non-photorealistic rendering
- Writing and presenting a scientific paper to the Web3D 2006 conference in Washington
- Technical environment: Linux, Windows, Windows Mobile, C/C++, Bash, Perl, VRML97, X3D, CVS, Embedded Visual C++

### Keyghost

*Christchurch, New-Zealand*

#### SOFTWARE DEVELOPMENT ENGINEER

*04/2003 - 12/2003*

- Developed a key analysis tool for the key logger of the company
- Studied and tested the face recognition method: Eigenface
- Technical environment: Windows, Delphi, C/C++, Octave

### Visualpix

*Bordeaux*

#### INTERNSHIP FOLLOWED BY A SOFTWARE ENGINEER CONTRACT

*04/2002 - 12/2002*

- Implemented a spatial index for a real time video compression codec
- Research in geometric perspective for video
- Technical environment: Linux, C, CVS

### Glisshouse

*Marseille*

#### DATABASE/WEB DEVELOPER, SYSTEM ADMINISTRATOR

*07/2000 - 03/2001*

- Web: Maintained an online shop, developed a CMS
- System administration: Installed, setup and maintained LAN (router, DNS, firewall, proxy, backup management, file server, print server)
- Technical environment: Linux, Php, MySQL, Apache, Samba, cron