

# Romain BERTHOLON

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Freelance  
R & D Engineer

## EXPERIENCE

**Dec. 2014 - Apr. 2016 : AVM Informatique (15 months)**  
**Cloud and communication operator, Lyon (France)**

<http://www.avm-informatique.com/en/>

**Software engineer (C++, C#, Nodejs)**

- Development and maintenance of the fax server and its related applications (C++, C#)
- Refactoring of the existing solutions and introduction of unit tests (GTest / GMock)
- Development of a LDAP / AD connector to identify users (Nodejs, Javascript)
- Level 3 support, bug fixing and maintenance of the various solutions

Dev tools : Visual Studio, MySQL, Linux, Git, TFS, Access

**Sep. 2013 - Apr. 2014 : IMC Financial Market (6 months)**  
**Market Making, Amsterdam**

<http://www.imc.nl/financialmarkets>

**Software engineer (C++, Multi-threading)**

- Development of tools to analyze auto-traders performances (C++)
- Development of market data streams decoders (C++)
- Development of a tool to purge databases (Java)
- Huge volumes of data to handle (several Tera-bytes / day)
- Language : **English**

Dev tools : IntelliJ, TeamCity, MySQL, Git, Jira, MathLab

**May 2012 - Aug. 2013 : Quanthouse, S&P (15 months)**  
**Market data / low latency networks, Paris**

<http://www.quanthouse.com/>

**Software engineer (C++ / Multi-threading)**

- Development of market data streams decoders (C++)
- Performance optimizations of the decoders (Profiling)
- Level 3 support : answers to clients requests

Dev tools : **Visual Studio**

**Mar. 2010 - May 2012 : ArxSys (2 years 1/2)**  
**Open Sources Forensic Framework, Paris**

<http://www.arxsys.fr> - <http://digital-forensic.org>

**R&D Engineer (Python / PyQt, C++ / Qt)**

- Development of in depth Linux file systems analysis tools (C++, Python, Qt)
- Development of an indexing engine (CLucene library)
- Development of user interfaces (Qt)
- Advanced documentation of the framework (WikiBook)
- Presentation of the framework to the concerned public (forensic experts)

Dev tools : **Git**, Trac, Emacs, miscellaneous forensic tools (DFF, Sleuthkit, Autopsy...)

**Nov. 2009 - Mar. 2010 and 2008 : Merethis (10 months)**  
**Open source network monitoring, Paris**

<http://www.merethis.com> - <http://centreon.com>

**Development of a data collector (C++)**

**Oct. 2008 - Feb. 2010 : Horus-Edu**

**Open Source digital workspace for colleges and universities**

**Development of the framework (C++ / Qt)**

- Contribution to an Open Source project (C++)

## COMPETENCIES

### Programming

- **Expert C, C++ 11/14**
- **Multi-Threading**
- Python
- Nodejs, ExpressJS
- **Java**, C#, Qt, SQL

### Methodology

- **TDD**, UML,
- Design pattern
- **Agile**, Scrum, Kanban
- Code review
- Continuous build and integration

### IDEs

- Visual Studio
- CodeLite, Code Blocks
- Emacs
- QtCreator

### Project management

- **Git**, Svn, TFS
- JIRA, Trac, Redmine
- TeamCity

### Debugging

- **Gdb**
- Valgrind, helgrind
- Node-inspector

### Databases

- MySQL,
- Access, SqlServer
- Mongo DB

### Systems

- GNU / Linux (Debian)
- MacOS
- Windows 7, 8, 10

### Languages

- **French** : mother tong
- **English**

## EDUCATION

**2006 - 2010 : { Epitech. }**

**Master of Information Technology**

Paris

<http://www.epitech.eu>

**2008 - 2009 : Chongqing University**

**Master of Software engineering**

Chongqing, China

<http://international.cqu.edu.cn/>

## ADDITIONAL INFORMATIONS

### Pastime

Walking in the forest

### Interests

Music : Guitar  
Drawing  
Reading  
Biblical Studies

### Driving license

Obtained in France in 2003