



# Romain Cochet, IT engineer

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	<b>Date of Birth :</b> 01/06/1985	

## EMPLOYMENT HISTORY

September 2008  
October 2009

### Embedded Engineer in Research and Development Departement Macq Electronique, Bruxelles, Belgium

Macq Electronique develops electronic equipment and software solutions for industry automation. As an embedded engineer, I was in charge of the development of a neural network into an electronic chip (FPGA from Altera). My responsibilities included :

- design of the **neural network** to fit in the FPGA
- **optimization** of communications between the processor and FPGA
- **VHDL development** of the neural network
- design and **C development** for a **Linux 2.6 driver**
- **documenting** driver, FPGA, interfaces
- design and development of an **embedded website** (with CGI)

March 2008  
September 2008

### Internship in Research and Development Departement Macq Electronique, Bruxelles, Belgium

My mission was to evaluate a digital camera from Aptina (Micron) for a traffic analysis system :

- development of an **I2C module** in VHDL for a FPGA in order to control the camera
- development to record images from the digital camera : **C++ with Microsoft Visual Studio**
- design and development of a test bench to analyze images : **SDL, OpenGL, GTK**
- **analyze and interpret** results to evaluate the quality of the camera

November 2007  
August 2008

### Co-founder of Weezy Weezy, Paris, France

During my studies, I created a small company (start-up) with 3 engineers. Our idea was to provide a small banking system using RFID bracelets as electronic wallet. Applications are : one-day events, bar & nightclub, monitoring consumptions/stocks... My role was to :

- design and develop the **small banking solution** (MVC engine in **PHP & MySQL**)
- **design and develop interfaces** between RFID bracelets and the banking solution (**Wifi**)
- design communications between all the hardware trigger/computer (**RFID readers**)

October 2007  
February 2008

### Software Developer Violet, Paris, France

Violet sells smart objects connected to the internet. The Nabaztag (main product) is a little wifi rabbit which displays informations (new-email, weather, new rss entry) by speaking, moving ears and lights. In my final year at Ecole Centrale d'Electronique I worked as a part-time developer of the Nabaztag and I :

- implemented a **XMPP client** over **HTTP : XML, Client/Server, XMPP-Bosh**
- improved the management of events in Nabaztag
- **extend the virtual machine** written in C
- add features in a **custom language** for the virtual machine



April 2007  
August 2007

## Internship as a prototype designer Violet, Paris, France

My role was to create and test new concepts of smart objects (like the Nabaztag). So I used old Nabaztags to build a `Wifi web-radio player`, `keys detectors`, `small electronics games`, `theater for figurines`. For all this objects, I had to :

- twist hardware boards to add/remove functionalities (new PCB design with eagle)
- develop new embedded software with IAR for an ARM7
- implement RFID reader and I2C protocol in C
- evaluate Zigbee solutions

July 2006  
August 2006

## Internship as a quality engineer StreamWide, Paris, France

Streamwide develops services and telecoms solutions for fixed and mobile operators. My role was to test an entire prepaid solution :

- redaction of a test plan and test book
- development of a tester written in PHP and using XML-RPC
- integration of this tool in the development lifecycle (SVN)
- bug tracking with bugzilla

June 2005  
July 2005

## Internship as a web developer and teacher assistant VPLA-78, Paris, France

VPLA-78 is a non-profit organization which helps young people who are mentally handicaped. I had 2 missions for this internship, develop a website (currently modified) and supervise a computer classroom.

- <http://www.vpla-78.com>
- <http://cavt.vpla-78.com>
- <http://actu.vpla-78.com>

June 2003

## Webmaster for a real estate Sylvain Immobilier, Songeons, France

Sylvain Immobilier is a real estate based near Paris. I had a 1 month contract as a web-master. I developed the front-end and back-end on a LAMP (Linux Apache MySQL PHP) solution.

- <http://www.sylvain-immo.com>

## EDUCATION

### 2003 - 2008 Master's Degree of engineering from Ecole Centrale d'Electronique ECE, Paris, France

- 2007-2008 Fifth year : Embedded Systems, digital home specialisation
- August 2007 3 intensives weeks courses of global management & manufacturing in UC Irvine (California)
- 2006-2007 Fourth year : Major in Embedded Systems, Minor in Management
- September 2005 3 months courses of electronics and computer science at Staffordshire University, England
- 2003 - 2006 3 years of common classes at ECE : Mathematics, Electronics, Computer Science, Physics



## SKILLS

<b>Embedded systems</b>	ARM7, PowerPC, FPGA, Microchip PIC, x86, Schematic and PCB layout with Eagle and Proteus
<b>Networking</b>	Experiences with RS232, I2C, Zigbee, Bluetooth, RFID
<b>OS</b>	Mac OsX, Windows (XP/CE), Linux (Debian/Mandriva, From Scratch)
<b>Languages</b>	ASM, C/C++, Java, SQL, PHP, XHTML, Css, Allegro, GTK, SDL, UML
<b>Desktop</b>	Word, Excel, Visio, Project, PowerPoint, OpenOffice, iWork
<b>Graphics Software</b>	Photoshop, Illustrator, Adobe Premiere, Blender 3D, InkScape

## MEMBERSHIPS AND AFFILIATIONS

<b>NoLarsen</b>	Chairman of NoLarsen (2005 to 2007), a non profit organization, 45 members. No Larsen manage Sound&Lights for all events of l'Ecole Centrale d'Electronique. I organized concerts, parties (500 persons) and other events for school. To achieve this goals, I had to manage a team of 30 persons. I deployed a webradio and start new activities : DJ lessons, introduction to music production, lessons about acoustics.
<b>AS ECE</b>	Member of a sport organization, playing soccer from 2003 to 2005

## HOBBIES AND INTERESTS

<b>Sports</b>	Soccer from 1994 to 2001 in Songeons Football Club
<b>Webdesign</b>	Design of websites/webservices in my spare time
<b>Photography</b>	Basis in photography with a Canon 450D

## REFERENCES

### Macq Electronique

Jacek Czyz  
Ph.D. in signal processing  
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### Violet

Paul Guyot  
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