

# Bertrand Roussel

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FRANCE

# Embedded Systems Engineer

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## OBJECTIVE

Motivated firmware developer, rapidly efficient, is looking forward to join an embedded software team at Sierra Wireless in Richmond.

## SKILLS

Development: C, C++, Qt, C#, xHTML, Ruby, CMake, PHP5, Python  
Networking: W-CDMA, LTE, CAN, I2C, SPI, SSL, TCP/IP  
OS: Linux (Gentoo, Debian, OpenEmbedded), Windows  
Platforms: Cortex-A8, Cortex-M3, ARM9, x86

## EXPERIENCE

2011 / 2012 (14 m.)

MStar Semiconductor  
Issy-les-Moulineaux (FR)  
(contractor)

### Development and assistance on W-CDMA L1 embedded software

Problem analysis on real-time software

System profiling and optimizations to stabilise and shrink MIPS consumption

Integration test implementation and automation using R&S CMU200

Creation of tools to profile, test and validate the chipset

*W-CDMA, LTE, C, RT, C++, Linux, Eclipse, C#, Ruby on Rails*

1st Sem. 2011 (6 m.)

CRDE  
Cahors (FR)  
(contractor)

### Embedded software conception: conceptualization, implementation and validation

Firmware for an energy measurement board

Firmware for the mainboard of an high-voltage network supervision module

Conception of a dynamic web-server and associated web service

Integration of lwIP (TCP/IP layer) and USB RNDIS implementation

USB implementation on a problem detection module

AT interface over USB (CDC)

*Cortex-M3, CAN, TCP/IP, RTX, lwIP, USB, xHTML / CSS / jQuery, Eclipse*

2nd Sem. 2010 (6 m.)

ID-Tech  
Vitrolles (FR)

### End-to-end prototyping for a mechanical product

Realization of a board and the associated firmware

*STM32, C / C++, Qt, Eagle*

2008 - 2009 (9 m.)

ISEN Engineering (FR)

### Member of a team to compete in the French Robotic Cup 2009

Interfacing dsPIC and ARM9 controllers on CAN network

*ARM9, CAN, Linux, C++, Qt*

## EDUCATION

Sept. 2010

**French Engineering diploma delivered by ISEN Toulon, specialized in mechatronics**

1st Sem. 2010 (6 m.)

University of Canterbury  
New-Zealand

### International exchange, computing and embedded software courses

Linux on embedded systems (driver development project)

Oriented-Object programming

*Cortex-A8, SPI, UML, Qt*

2005 - 2009 (5 y.)

ISEN Toulon  
France

### Engineering course

System, network and graphic development

High Performance Computing (Optimization, Cloud computing)

Radio-frequency communication

## INTERESTS

Languages

**French:** mother tongue

**English:** fluent (TOEIC : 970/990, TOEFL : 96/120, First)

**Swedish:** beginner

Activities

Likes travelling (Scandinavia, Asia, Oceania), listening to music, playing poker and DIY.

Sports: climbing, trekking, skiing