

**Nicolas
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**Embedded Computing Software
Architect & Integrator**
12 years of experiences

Introduction

Back from a long travel in Australia and New-Zealand, I am looking for a technical leader position in the context of an embedded computing project.

I have an engineering diploma in computing applied to industry completed with diplomas in general computing, electronic, industrial computing and medical imaging.

For 12 years I worked for the embedded computing department of Capgemini for some famous companies (Schlumberger, France-Telecom, Freescale, CNES), in different fields (smart-cards, sim cards, mobile phone, space engineering), at different positions (software developer, architect and integrator) and technically following Indian and Spanish subcontractors.

Languages

French Native
English Fluent
Spanish Basic fluent

Domains

- Transports
- Smart cards
- Mobile phone
- Satellites

Specialties

- Embedded
- Real-Time
- Scheduling
- Defensive coding
- Low-level
- Driver / BSP
- Agile
- Continuous Integration

Education

2000 - Engineering School of Software for the Industry of Tours

2000 - Tour university, Master degree in Signal and Image Processing

1997 - Grenoble university, Bachelor degree in Software, Industrial computing and Electronic. (2 french DUT diplomas)

Skill set

- Languages : C (Expert), C++, Assembly;
- OS : Linux, RTEMS;
- Processors : Sparc (Leon 2, ERC32), Arm, x86;
- Testing : RTTRT, Hudson, Jenkins;
- Agile Methodologies : Scrum, Kanban, Xp;
- Smart cards & RFID standards : ISO7816, ISO14443;
- Mobile phone standards : CEA936, Sim cards;
- Aeronautic / Space standards : PUS, Arinc653;
- Databases : sqlite, mongodb, Elasticsearch;
- Security : Secure Access Module, Secure key;
- Web technologies : nodejs, angularjs;
- Other : Electronic, Virtualization, ISO7498 (OSI model).

About me

I like

- Long travel;
- Photos;
- Hiking;
- Winter Sports;
- Computer technologies;
- Building responsive design websites..

Vi Technology

Grenoble, France

11/2010 to 8/2012

subcontractor for
Sogeti High-Tech
(Capgemini group)

Software integrator and architect in a team of 15 developers.

Vi Technology designs machines for solder paste and components inspection, builds them and sells them worldwide. These machines ensure quality on the production lanes of electronic manufacturers.

I was responsible of the software delivery process, the testing and the integration within the final hardware in the context of an agile project. I chose the database, linux version and some of the embedded computer specifications.

Link : <http://www.vitechnology.com/product/spi>

Skills : Linux, Hudson, Scrum.

CNES

Grenoble, France

10/2008 to 11/2010

subcontractor for
Sogeti High-Tech
(Capgemini group)

Software Architect - embedded software for satellites.

Research, conception, realization and application of embedded software in some scientific satellites. The software based on a virtualization technology had to cope with strong hardware and real-time constraints but still, had to be generic enough to be used within different satellites.

I was responsible for writing the specification of an hypervisor (virtualization) and make it realized by a Spanish subcontractor. I was also in charge of the architecture of the software dealing with the real-time constraints.

Link : http://smc.cnes.fr/SVOM/GP_satellite.htm

Location : GRENoble and TOULOUSE, FRANCE.

Team of 10 people jointly to a CNES team.

Skills : Virtualization, C, Linux, Hudson, Leon2 processor, ARINC653, Rtems, Os porting, XtratuM, Time and Space Partitioning (TSP).

CEA - French Atomic Energy Commission

Grenoble, France
1/2007 to 2/2010

subcontractor for
Sogeti High-Tech
(Capgemini group)

Software Architect – embedded software for satellites.

Conception, realization and testing of software embedded in the “SWARM” satellites (mapping the earth magnetic field). The software had to deal with strong hardware and real-time constraints.

I was in charge of providing proof that the constraints were respected. This software was also used in the Jean-Louis ETIENNE's Arctic Challenge expedition in 2010 and designed the test environment.

Links :

- CNES : <http://smc.cnes.fr/SWARM>
- ESA : <http://goo.gl/MvIYKn>
- Arctic Challenge :
http://jeanlouisetienne.com/EN/arctic_challenge/

Team of 10 people jointly to a CEA team.

Skills : C, Linux, Hudson, ERC32, processor, Rtems.

Freescale Semiconductors

Toulouse, France
8/2005 to 12/2006

subcontractor for Capgemini

Software integrator for mobile telephony

For FREESCALE / MOTOROLA, Software integrator responsible of the SIM card software integration within mobile phones software. Technically managing 3 persons in India.

Skills : Arm 11, C, C++, Linux, Gsm, Sim card, ISO7816.

Texas Instruments

Grenoble, France
7/2004 to 2/2005

subcontractor for Capgemini

Writing Driver specifications for mobile telephony

Within the context of the creation of a mobile phone, I was in charge of writing specification of drivers to be realized in India :

- Sim card reader device driver
- DMA driver.

I participate as well in porting an ALCATEL application suit into the Texas Instrument mobile platform.

Skills : Arm 9, NUCLEUS, C++, Gsm, Sim, DMA, driver, iso7816

Parkeon /
Schlumberger

Grenoble, France

10/2001 to 9/2003

subcontractor for Capgemini

Embedded Software Developer

Conception of the smartcard communication stack supporting both, contact and contact-less smartcards in the context an embedded reader for vending machines for transportation, on-street and off-street car-parks.

Link : <http://www.parkeon.co.uk/>

Team : 8 people.

Skills : Arm 7, Nucleus, C, Smartcards, Sam, RFID, ISO7816, ISO14443, ISO7498 (OSI model).

Atmel

Grenoble, France

1/2001 to 9/2003

subcontractor for Capgemini

Software Developer

Creation of the fingerprint device development toolkit.

Skills : pc, Visual C++.