

# Fabrice LUCIEN

Born on: June 16<sup>th</sup>, 1976 ■ Single ■ French driving license

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## OBJECTIVES

*Bring my software engineering abilities to your company high-tech products development. Work with your customers for successful integration of your solutions. Help in bringing customers voice back to your company.*

## EDUCATION AND QUALIFICATIONS

**ENSEIRB**, Bordeaux, France 1996 - 2000

Top French engineering school in Electronics and Computer Science

Engineer diploma in Electronics with Telecoms specialization. Equivalent to third year above A-levels. Course modules: analog & digital Electronics, automatism (automation / real time), computer science & engineering, telecommunications, microelectronics.

**LYCÉE RICHELIEU**, Rueil-Malmaison, France 1994 - 1996

Preparatory for admission to French Engineering Schools. Advanced mathematics courses in preparation for competitive national exams, for entering French engineering schools.

“Baccalauréat, mention bien”. Equivalent to A Level obtained with honors after 3 years in a Secondary school.

## SKILLS

### Computer Science & Electronics

<b>Microprocessors</b> <b>Programming languages</b> <b>Operating systems</b> <b>Software development</b>	<b>ARM7/9, ARC5, Cortex-M0, 80C51, Atmel AVR, NXP SmartMX, V20 (x86), V8, PIC, 68000.</b>
	<b>Assembly, C, MS Visual Basic/C++/C#, MFC, HTML, JavaScript, SQL, Lua, Python.</b>
	<b>Nucleus Plus, MQX, ThreadX, Windows XP-embedded, UNIX, Linux, BREW.</b>
	<b>Design</b> JUDE / astah Community, Serena Dimensions RM.
	<b>Debugging</b> JTAG debug, emulator, logic analyzer, electronic signals measurement.
	<b>Source code control</b> CVS, Subversion/SVN, Visual SourceSafe, Serena Dimensions CM.
	<b>Documentation</b> Doxygen.
<b>Issues processing</b>	Serena Team Track / Business Manager, JIRA, BugZilla, Oracle CRM On Demand.
	<b>Quality</b> Fault Tree Analysis.

### Fields

<b>Security</b>	<b>Chip &amp; magnetic cards</b>	BO', ISO7816, EMV CPS, E-Sign, ISO7811, SIM/USIM for mobile.
	<b>Cryptography</b>	DES, RSA and SHA algorithms.
	<b>Architectures</b>	Identification Authentication Signature (IAS), Secure Electronic Transactions (SET).

<b>Wired data transfer</b>	USB (analyzer handling), SPI, I <sup>2</sup> C, DMA, XMODEM.
<b>Wireless data transfer</b>	GSM, in-band modem, GPRS, EDGE, R&S CMU tester, UMTS, LTE. X.25, ISDN, ATM. AT commands, CMUX, OMA-DM.
<b>Internet</b>	Wi-Fi/WLAN, Bluetooth (PAN & SAP profiles). IP v4/v6, NAT/PAT, DHCP, TCP, UDP, HTTP, FTP, DNS, Ethernet, ARP, Wireshark.
<b>Automotive</b>	CAN bus (Vector CANalyzer, XL-Driver-Library), airbag interface.
<b>Positioning</b>	GPS, A-GPS, Dead-reckoning, NMEA frames.
<b>Data storage</b>	File systems, SCSI, FAT, Flash memories.
<b>Image &amp; video</b>	Sliding scanners, CIS sensor, stepper motor, 2D & PDF417 barcodes. BMP file format, TWAIN interface, DirectDraw.
	Thermal impression process.
<b>Audio</b>	PCM, AMR, echo-cancellation.

## Languages

<b>English</b>	Practiced well, TOEFL 500, language-learning trips in England. Emails and phone calls with people from Brazil/China/India/Italy/NAM/Poland/Sweden. Frequent business trips inside Europe. Work within a <a href="#">multiple regions company</a> .
<b>French</b>	Mother tongue.
<b>German</b>	School notions, language-learning trips in Germany.

## WORK EXPERIENCE

<b>Software Application Engineer</b>	<i>April 2007 – present</i>	<b>SIERRA WIRELESS</b> (ex-WAVECOM), Issy-les-Moulineaux, France
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*2G/3G Embedded Wireless Modules – Automotive industry field: providers of in-vehicle emergency call and Telematics systems (for PSA, BMW, Volvo, Renault)*

**Support closely** strategic customers development teams in using company software layers and tools. Review customer source code. Participate to 2G/3G/GPS/Wi-Fi field tests. Process software issues: analyze and reproduce, report/escalate to developers in France/India/China, provide defect detailed explanation, then schedule fixes delivery. Have regular remote follow-up meetings, and on-customer-site workshops (1 day to 2 weeks in Europe).

Feedback **return of experience**: submit requests for improvements or new features, create application notes and source code snippets for world-wide usage.

**Develop C/C#/Lua software** for Sales/FAE teams to **demonstrate products abilities** and **new features** (e.g. emergency call, A-GPS positioning, 3G-WiFi car hotspot, eco-driving applet, CAN bus driver, CAN bus simulator, pseudo USB stick). Retrieve any missing knowledge from R&D experts. Provide technical answers to received RFI/RFQ.

<b>Software Engineer</b>	<i>July 2001 – March 2007</i>	<b>SAGEM DEFENSE &amp; SECURITY</b> , Eragny, France
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*Lottery Secured Terminals – 54 months*

Take software responsibility for the **USB device** performing scan, print and **chip cards access**. Debug **real time firmwares embedded** into two ASICs, set-up their validation process. Implement evolutions to fulfill customers' requirements: add **magnetic card reading**, recto-verso color scan, and magnetic barcode acquisition. Port the whole source code from X86, to ARM and then ARC architectures. Move the **multi-threaded application** from Nucleus to MQX and then ThreadX **RTOS** environment.

Upgrade a **Windows C++/MFC application** used to test all terminal devices: scanner, printer, touch-screen, PCI card, motherboard. Add some **GUI** components.

Write functional English **specifications**, and technically **support** worldwide-located customers. Interact with hardware design team. Look for suppliers. **Supervise** one trainee.

### Smart Cards – 15 months

Integrate the team developing the “Vitale2” French health card. Specify and implement **personalization** and administration services. Respect strong **constraints** regarding **security** and code size. Write some **Visual Basic** scripts to **validate** the whole card behavior. Work closely with other engineers.

Upgrade a **Windows (C#/.NET)** application used for cards **personalization**.

### Hardware Engineer

May 2001 – June 2001

SAGEM COMMUNICATIONS, Cergy, France

#### Mobile Phone Modules

Complete the hardware validation of the “base band” part of a **GSM/DCS module**.

### Scientific Conscript Soldier

September 2000 – April 2001

FRANCE AIR FORCE, Orléans, France

#### Telecommunications Group

Improve one **Visual Basic** e-mailing **application**. Write the user guide of one telecom equipments management software.

#### Training Unit

**Train a group** of militaries to scientific subjects of a competitive military exam.

### Trainee

UNIVERSITARY MICROELECTRONICS WORKSHOP (AIME) June 2000 – Toulouse, France

#### Integrated Circuits manufacturing.

Perform all the process steps required to **produce an Integrated Chip** starting from silicon substrate to final tests.

ACTIVIDENTITY July-November 1999 – Suresnes, France

#### Smart card reader for a european e-commerce solution

Develop in C language several **cryptographic services** to be provided by the **card reader** firmware.

SAGEM DEFENSE & SECURITY July-August 1998 – Eragny, France

#### Electronic systems used in fighters for navigation/attack

Follow-up tests and reparations of electronic cards. Set-up different wiring procedures of a test equipment.

Develop **Visual Basic** macros to convert an MS Office Excel file to ASCII.

RENAULT July-August 1997 – Rueil-Malmaison, France

#### Vehicle electronic calculators diagnostic tool

Fill-in a database. Consider requirements from people working on the different calculators.

## ACTIVITIES AND INTERESTS

Sports	Badminton, sailing, hiking.
Music	Amateur guitarist.
Internet	Web pages edition.
Miscellaneous	Traveling, photography, movies, reading.