

20 Years of experience in computer science from development, testing to managerial roles.

INDUSTRIES

- Telecommunication
- Smartcards
- Automotive
- Medical Devices & Pharma
- Web & Internet
- Cloud & Mobile & IoT
- Finances & Banking
- Public Transportation
- Offset & Digital Printing
- Digital Marketing & E-Commerce

CERTIFICATES / TRAININGS

- Foundation and Advanced Management Program (Thunderbird School of Global Management)
- Certified Scrum Master
- Certified Security Penetration Tester
- Certified Mobile Application Tester
- ISTQB – Foundation Tester
- CSQE: Certified Software Quality Engineer

REGULATIONS AND STANDARDS

- FDA / BSI / MDSAP / MDR
- MISRA C/C++
- ANSI/AAMI/IEC 62304 & 82304
- AAMI ANSI ISO 14971
- EN ISO 13485
- FDA-G-2005/05
- IEEE Standard 829-2008
- IEEE 1044-2009
- 21 CFR 820 & 21 CFR part11
- OWASP Top 10 / Mobile Security / Testing guide

EDUCATION & LANGUAGE

- DUT in Computer Sciences at the University of Sciences and Technologies of Lille in France.
- ERASMUS Student Exchange program (Finland – '98)
- French / English

Summary

Results-oriented Team Leader with expertise in software development, quality engineering, and change management. Effective at managing diverse team members to accomplish business goals. Detail-oriented and efficient, with strengths in both project management and analyzing the need of customers.

Skills / Core Competences

- Strong team-building skills from motivation, organization to delegating tasks based on strength of members.
- Significant experience in Software Architecture, Software Development and Software Quality Engineering.
- Excellent goal tracking, KPI measurement and reporting.
- Very strong technical background in different technologies and strategic thinking.
- Experimented change manager and adoption of new methodologies like Agile.

Technical Skills

- **Cloud:** AWS, Google Cloud, MS Azure.
- **IoT:** Smart, Connected and IoT Devices.
- **CI/CD:** Continuous Integration, Development and Testing Framework. Jenkins, Selenium, Appium, Bitbar.
- **Software Development:** C/C++/C# on server/desktop and embedded platform.
- **Web Development:** Java, Php, MySQL, CSS, JavaScript, HTML, Web services, SOAP, RESTful.
- **Testing:** End to end test strategy with automation, performance, cybersecurity, acceptance tests.
- **Databases:** ODBC, Sybase, MySQL, SQLite, Oracle.
- **Smartcard:** OS, Card Reader and API development.
- **Network:** Sockets, TCP/IP, HTTP, FTP, DBus, Web Services, Named Pipes, SOAP, RESTful.
- **Frameworks:** MFC, .Net 3.5, QT4, GTK+, QtQuick, Boost, Story Board, jQuery, AngularJS, Zend.
- **Source Management:** SVN, CMVC, ClearCase, Git (GitLab, CodeCommit, Bitbucket)
- **Documentation:** XML, UML, Wiki. High Level/Low Level Design. Medical Device 62304.
- **Mobile:** iPhone, Android, Windows Phone development and testing.
- **IDE:** Visual Studio, Eclipse, Qt Creator, VS Code.
- **Operating System (target):** Windows 98 to 10, Linux (CentOs, RedHat, WindRiver, Ubuntu), Qnx 6.5 SP1, Android, iOS.

Achievements

Merck Group

Medical Device and Services Department.

02/2016 - Now
Vaud / Switzerland

Projects: Digital Healthcare Systems (Web, Mobile, IoT)

Role: Director, Head of Digital Product Excellence.

Product / Platform features:

- Internet-based platform that undertakes to help improve the lives of patients living with chronic conditions, allowing healthcare providers to achieve better health outcomes for patients while containing costs and improving access to care.
- Cloud based application with modern UX/UI on desktop PC and mobile devices (Android, Apple)
- Electro-mechanical Injectors connected to the Cloud (Class III/C).

Responsibilities:

- Building a team through reorganization of departments. Assessment and recruitment of team members. Definition of job description, yearly objectives and evaluation of people.
- Leading a team of experts in different domains:
 - Cloud and Mobile application testing in Medical Device industry from low level verification to end user validation (V&V).
 - Validation of tools (CSV), Cloud Services, On-Premise SW for using in Medical device deployment, manufacturing and testing.
 - Strategy and Partnership management for state of art testing approach in medical device industry using new technologies related to Cloud and IoT. The strategies are going from basic testing to elaborated test methods like Cybersecurity, Power Consumption, Automation, CI/CD, Service integration.
- Reorganized the team, established and implemented efficient SDLC processes and fostered the transition to an **agile** methodology.
- Planning, monitoring, reporting, resource management, quality and risk management as well as serving as a reputable change agent, have resulted in consistently delivering large scale projects up to 2 million euro, on time and on budget.
- Preparation and participation to FDA/BSI audits as software quality engineering accountable.
- Cybersecurity strategy implementation and partnership management.

Technical Environment:

- **Cloud:** SaaS and IaaS from Amazon Web Services (AWS) and MS Azure. Hosting provider agnostic design based on Kubernetes and Terraform deployment.
- **IoT** integration: Fitness trackers (Fitbit, Misfit, Nokia), blood pressure monitor (Nokia), Smart Drug Injectors (Merck).
- **Web** and **Mobile** applications: HTML, CSS, JavaScript, Java, AngularJS.
- **Automated Testing** and **Performance** measurement strategy: Selenium, Appium, JMeter, etc.
- **Cybersecurity** Testing: OWASP Top 10 - Mobile Security - Testing guide.
- Database: Oracle and PostgreSQL.
- **CI/CD/TAF** platform: Jenkins, PMD, CheckStyle, Maven, Selenium Web Driver, Appium, TestNG, Extent, Jira, Testdroid, Eclipse, SauceLabs, CodeCommit, Artifactory, Jama, Tableau, Gradle.

Project: Neuro Critical Care Medical Device (Modular Platform)
Role: Team Leader & Staff R&D Engineer.

Product / Platform features:

- Physiological Signal Monitoring device (Intracranial Pressure, Blood Pressure, Temperature, ...)
- Real Time waveform drawing and calculation of Mean, Systolic, Diastolic
- Storage and Export of large amount of data.
- Touch Screen input, Audio, Temperature Sensor, etc.

Responsibilities:

- Team Leader & Scrum master for the development and testing of embedded medical device.
- Work with medical device development standards like ISO13485 & IEC 62304 and J&J internal processes like SEP-040 and MSP-309.
- Development of prototype software for hardware specification validation and voice of customer (VOC) process.
- Participate to the product requirements definition based on user needs.
- Definition of the stories and scrum planning for 3 weeks sprints. Assignment of task to team members.
- High level software design. Definition of modules and inter-process interfaces.
- Low level design and implementation of some modules.
- Definition of test protocol and unit testing with LDRA suite and custom tools.
- Full V&V Cycle: Test protocol & Integration testing with custom tools.

Technical Environment:

- Custom **Qnx** platform on TI omap3 board.
- Development of BSP for **ARM** v7 platform.
- **C/C++** development with Qnx Momentics IDE (Eclipse based)
- Desktop tools development on Windows 7, Visual studio, C#
- Communication protocols: mqueue, RPC, TCP/IP, UDP.
- **Drivers** for USB, SD Card, NAND, NOR, Ethernet, CAN Bus (CANOpen), Touchscreen, OpenGL ES2.
- Development environment: Eclipse, qcc, makefile, Visual C#.
- Database: Binary files for high performance, SQLite.
- Test environment: LDRA + Custom tools.

Project: XYFI USB Personal Hotspot with integrated WiFi & 3G.
Role: Senior Software Developer (Freelancer).

Product / Platform features:

- 3G/4G connection
- Wifi Router/hotspot
- Embedded http server

Responsibilities:

- Participate to the development of the USB personal hotspot.
- Testing and debugging of existing code.
- Discussion with the Product Manager for converting request to software requirement and design.

Technical Environment:

- **DD-WRT** Linux distribution with custom build.
- Backend development with C language with gcc compiler.
- User interface as embedded **web server** accessible with any navigator: HTML, JavaScript (jQuery), CSS. AJAX based interface for application feeling for the user.
- **Testing** user interface with browser and devices: IE8+, Firefox, Chrome, iPhone, iPad, Android, Windows Phone.
- Converting PSD design into user interface with PNG files.
- Keywords: Wifi, 3G, sim card, embedded web interface.

Project: Genivi Prototype – Automotive Navigation Systems
Role: Senior Software developer (Freelancer).

Product / Platform features:

- Car Embedded Infotainment system with Navigation system (IVI), Multimedia Player and Smartphone connectivity.

Responsibilities:

- I joined the platform team to work on a R&D prototype based on the Genivi project. We worked on the migration of the existing navigation system and created a new HMI with more touch friendly behaviors. The new application is modular and can accept new application from a market like Pandora player, tweeter and google map.
- Agile team member. Daily standup meetings, sprints and scrum.

Technical Environment:

- Linux embedded development in **C, C++** using libraries like Boost, Qt4 and STL.
- Communication protocols: MOST, DBus, RPC.
- Development environment: Eclipse, gcc, cmake.
- Database: **SQLite**

**Continuous Feed Printers – Graphical User Interface.
Team Leader – Senior Software developer.**

Product / Platform features:

- Industrial level continuous feed printers
- Touch screen user interface.
- High Speed printing systems

Responsibilities:

- GUI Team leader: 5 people management for task assignment, coordination with other teams, and link to the management.
- Technical expert for feature definition for upcoming product. Meeting with architects and system engineers.
- Senior Developer: GUI development with VS2010 and .Net. Custom drawn components. Coordination with UX/UI department for GUI widget definition.

Technical Environment: Embedded GUI for Continuous Feed printers.

- Sustaining: Visual Studio 2005 with **C++**, MFC, STL for GUI development.
- New Projects: Visual Studio 2010 with **C#** and .Net 3.5 for GUI development.
- Communication protocols: Named Pipes, Web services.
- Team Management: Partial-Agile team Leader.
- Databases: Access with synchronization on multiple engines.

Project: Onboard ticketing system for public transportation.
Role: Senior Embedded developer (Freelancer).

Product / Platform features:

- Public Transport Vehicle embedded Ticketing system placed on the driver board.
- GUI + multiple connected device (Printer, Camera, Displays, Ticket Reader/Writer)

Responsibilities:

- I joined the project for making the ticketing part of a big project concerning the new systems in buses and tramways in the Wallonia. I have to make the technical analysis from the functional analysis and make the development in Linux environment with many peripherals.
- Reverse engineering on existing devices.
- Documentation for research and development.
- The development is considered to be embedded because the environment and machines are made for high resistance and stability.

Technical Environment:

- Homemade Linux distribution (debian) for embedded environment
- C/C++ (gcc) language with TCP/IP, system messaging and other tools used to have a robust code.
- The user interface is done using GTK+ framework.
- Many communication ports: Serial ports: RS 232/RS 485, TCP/IP, CAN.
- Smartcard: DESFire card from NXP (Philips) for data storing.
- Many peripherals: special ticket printer, touch screen, smart card reader.
- Embedded database and synchronizations: MySQL, Sybase, Mobilink, SAP.
- Doxygen code documentation.

Projects: IT Services – CRM/ERP – Web Development.

Role: Startup Founder, CTO, R&D Manager – IT Solution Provider

Responsibilities:

Founder of the company, I was leading the technical part of the projects. The company worked mainly with small sized companies for providing Design, IT and Printing services. We provided consulting service as well to bigger companies: Xerox, SRWT/TEC, AW Europe, Option, etc.

- As founder, participate to the management board and define together the vision of the company and define services we were providing. Close contact with the financial aspect.
- Participate to the Business plan preparation with many years of projection.
- Project Management:
 - Requirement definition with the customer
 - Planning and Functional analyze.
 - Product delivery – Maintenance.
- Team management 2 to 6 People.
- Management of internal and outsourced (India/Luxembourg) teams
- Technical analyze and task assignment. Daily task management for team members. Priority Management.
- Coordination with Designers and Commercial team for the success of the projects.
- Do realistic estimation of the work for correct quotation.

Technical Environment:

- Hosting Server administration: LAMP platform. Server in international datacenters.
- Languages: Php, MySQL, C++, C#, JavaScript, HTML, DHTML, XML.
- Design Tools: Adobe Photoshop CS4, Corel Draw.
- Team and Task management with Redmine and other tools.

Project: Remote control and data logging devices
Role: Software Engineer.

Responsibilities:

Techno Trade is a manufacturer of remote control and data logging device. Their products are used all around the world for controlling other device, detection of issues, automation of tasks, data logging.

- Software developer: Win32 Application.
- Documentation of the Code and Design.
- Testing of module and integration test.

Technical Environment:

- Communication ports: RS232, RS484, TCP/IP, PCMCIA, OS, MODEM 14K, ZILOG Z80, MITSUBISHI M16C LP,
- Protocols: FTP, HTTP, Serial COM.
- Visual C++ (MFC, STL), C, SourceSafe
- OS: Windows 2000.

Project: Smartcard Reader for Industry
Role: Software Engineer.

Responsibilities:

Micropross is a company specialized in manufacturing industrial smart card readers. These readers are made for companies producing smart card.

- I was responsible to develop USB driver for Windows to communicate with the Smart Card Reader. I developed, using Microsoft SDK, USB drivers for all products of Micropross. Recognizing the device and using the good DLL files for communications with this device.
- After this I worked on a calculation module used by the application to detect defect card. In fact, the smartcard reader is not only reading a card but making lot of test with a big precision to check if the card is respecting ISO 7816/14443 protocols in sequence timing and this calculation is done using big log files. In the mean time I was given the task to refresh the look of the software. It was an application developed since few years and the look was a bit old, I adapted it to the present.

Technical Environment:

- USB, DLL, Multithread, Smart Card, Contact/Contact less card, ISO 14443, ISO 7816 A/B.
- Visual Basic programming with C++ DLL.
- OS: Windows 2000

Project: CLS - Forex System
Role: IT Specialist.

CLS project is an application for 60 biggest banks all around the world. This application is used for money exchange between them. There were about 200 software engineers on this project divided in many teams.

Responsibilities:

- I was responsible to develop the GUI.
- In coordination with architect team, I had to make technical analyze of the functionality and propose solution to implement it.
- Interaction with the test team for issues solving.
- Full technical documentation.

Technical Environment:

- MFC, Win32, STL, C++
- CMVC: Task and source management.
- AIX and Windows System.

Projects: Smartcard & Security Apps
Role: Embedded Software developer.

Responsibilities:

- After training with a specialist in this domain (smart cards) I developed an OS for smart card using Assembler 6805 for Motorola Controller.
- I was responsible of analyze, development and testing of it. This OS was containing file management, user access control (password and levels), 3DES cryptographic algorithm.
- This OS was redesigned in C, Java and Visual Basic for customer needs and different platform for this: Sun Java Card, Microsoft For SmartCards, Gemplus Card, PC simulator.
- In the meantime, I work on different part of an application developed to make Windows 98 and Windows 2000 more secure for professional use. Low level development to control access to the hard disk and cryptographic algorithm to protect files.
- For all smartcard products, we developed a tool named SmartCardEditor which is used to configure, personalize and test all kind of card.

Technical Environment:

- VxD for windows security development
- Custom OS for Smart Card
- Programming Languages: Assembler, C, Java, Visual Basic,
- Embedded development, Emulator, Simulator, JDK