Curriculum Vitae

Name	Nicolas Grosjean
Function	Senior Software Engineer
Main Focus	As a software architect working in the field of embedded systems (medical equipment, car, train, plane, satellite, ...) for more than 30 years, I am enthusiastic about designing, developing, integrating, testing and maintaining high quality complex systems.

Education and Employment

Since 08/1999	Capgemini Paris - Bruxelles - Munich
09/1994 – 08/1999	Software Developer at SDI, Paris
1993	Engineering school - Physical Oceanography - ENSTA Paris Tech. ENSTA is the military school for weapons engineers. Paris - France

Computer Science Knowledge

Methods	OOD, UML, Scrumm
Operating Systems	Linux, Unix
Programming Languages	Embedded C++ / C++ (STL, Qt, Boost...), Bash, Python, Ada
Tools	gVim, Jira, Jenkins, Entreprise Architect, gdb, Valgrind, DOORS, Doxygen, cmake, git...

Professional Experience

Now – 06/2024

Project Requirement Analyse – Software Testing

- Updating installation procedure
- Updating automotive software with Magic Draw
- Use of a virtual machine

Capgemini

Project Environment: Vmware, Windows, Jira Git, MagicDraw, OSLC, Symphony

Used skills: analyse of requirement

05/2023 – 12/2023 **Requirement Analyse – Software Testing**

The tests and analysis of the requirements have revealed many errors.

- Matlab / Simulink test
- Checking the requirements and the the link between the requirements in the V-cycle

Project Environment: Matlab, Simulink, Codebeamer

Used Skills: analyse of requirement

04/2023 – 05/2023 **Software Quality**

Analyse and Documentation of a un-documented library (part of ICV-L Software)

Tools/Skills: Doxygen, cmake, gnu C++

01/2022 – 07/2022 **Delivery Risk Manager**

FMEA for a TuSimple Software (autonomous driving trucks)

Tools/Skills: FMEA

A complete analyse was delivered.

05/2021 – 08/2021 **Software Engineer**

Two programs must run on the same processor on IDNE platform (Intelligentes, Datengetriebenes und Netzstabilisierendes Energieversorgungsmanagement / Smart Grids).

Tools/Skills: gvim, C++

A code review was done, with positive conclusion.

09/2019 – 06/2020 **Software Architect / Lead Software Developer**

Automotive suppliers - Active safety & Driver assistance systems

Creation of MDF4 reader and interpreter software.

The ASAM MDF (Measurement Data Format) is a binary file format for recording e.g. CAN, CAN FD and LIN bus data. Today, MDF4 is the industry standard - ensuring interoperability across many CAN tools.

- Software Architecture : multiple executable with a common library

- Quality Management
- Performance Improvement (Memory leaks, optimisation)
- Software development
- C++, Object Oriented, Linux, Valgrind, mdf4 files

04/2017 – 08/2019 **Lead Software Engineer, Software Management**

Automotive suppliers - Infotainment

Spider is the BMW driving simulation software. In the context of the development and update on this simulation software :

- Design and complete update of the build and software dependency management tool (>400 Makefile converted to cmake)
- Development of new functionality related to the synchronization of sound, image and vibration

Tools/Skills: cmake, gvim, bash script

12/2015 – 03/2017 **Software Engineer**

Automotive suppliers – Infotainment

- Module Requirement, coding and testing (usb / wifi),
- Create USB bus simulator (libusb, UDisk2),
- Manage BMW CommAPI Interface,
- Teaching to the team the art of testing,
- Test Implementation,
- Coding and Decoding Wifi messages (apple, miramax...)

Tools/Skills: libusb, c++, wifi, coding and decoding

04/2015 – 11/2015 **Software Architect**

Automotive suppliers – Electric/Electronic Architecture

BMW Camera system to replace mirrors

- Define the software architecture,
- Define the milestones,
- Manage the requirement in a R&D environment,
- Check the software quality (5 people),
- Coding and Testing the module,
- Bug Management, documentation.

Tools/Skills: Entreprise Architect, c++, cmake, gdb

01/2015 **Software Tester**

03/2015	Automotive suppliers – Electric/Electronic Architecture

A Software with poor quality should be tested

- Make drastic choice about the tools,
- Test implementation,
- Test Coverage management,
- Bug Management,
- Bug, test and requirement Documentation,

Tools/Skills: c++, cmake, gdb

11/2013	**Software Tester**
12/2014	Automotive suppliers – Electric/Electronic Architecture

From objects positions, this software compute the objects trajectories

- Check of requirements (incomplete or contradictory)
- Test plan
- Test report

Tools/Skills: DOORS, gdb

08/2013	**Software Integrator**
11/2014	Automotive suppliers – Electric/Electronic Architecture

Integration of incompatible libraries

- integration of BMW library with Bosh Software. The Interface were incompatible.
- very short delay (deadline has already passed!)
- Report error and bug,
- Interface adaptation,
- Unit and Integration Test,
- Interface with supplier.

Tools/Skills: C++, QAC, gvim.

Languages

French	Mother tongue
English	Business fluent
German	Business fluent