Competence Profil

Herr Nicolas GROSJEAN

*Engineer*

*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, testing and maintaining high quality complex systems.*

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| **Personal Details** | **Skills** |
| * Consultant * Date of birth: 1969 * Place of birth : Reims (France) * Residence : Geisenbrunn (Bayern) * Nationality: French * Location preference : * Availability: Now | * Embedded C++ * Linux * Object Oriented * STL / Boost / Qt * Entreprise Architect * Python / Bash Shell * Requirements Analysis * Software Quality * Tools: Scrum / Jira / Jenkins / DOORS / Codebeamer / Doxygen / GIT... * Sprachkenntnisse: French (Native), English (Fluent), German (B2) |

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| ▼ | **BMW** |
| Now  06/2024 | **Requirement Analyse – Software Testing**  Munich   * **Updating installation procedure** * **Updating automotive software with Magic Draw** * **Use of a virtual machine**   Tools/Skills: Jira, Git, MagicDraw |

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| ▼ | **Ebespaecher GmbH** |
| 05/2023  12/2023 | **Requirement Analyse – Software Testing**  Munich, Landau   * **Matlab / Simulink test** * **Checking the requirements and the the link between the requirements in the V-cycle**   Tools/Skills: Matlab, Simulink, Codebeamer  The tests and analysis of the requirements have revealed many errors. |

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| ▼ | **BMW Passenger Cars, Munich** |
| 04/2023  05/2023 | **Software Quality**  Munich  **Analyse and Documentation of a un-documented library (part of ICV-L Software)**  Tools/Skills: Doxygen, cmake, gnu C++ |

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| ▼ | **TuSimple, USA** |
| 01/2022  07/2022 | **Delivery Risk Manager**  Munich   * **FMEA for a TuSimple Software (autonomous driving trucks)**   Tools/Skills: FMEA  A complete analyse was delivered. |

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| ▼ | **MAN-ES, Munich** |
| 05/2021  08/2021 | **Software Engineer**  Munich   * **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. |

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| ▼ | **MAGNA, Germany** |
| 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 |

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| ▼ | **BMW PASSENGER CARS, Munich** |
| 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 |

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| ▼ | **BMW Passenger Cars, Munich** |
| 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 |

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| ▼ | **BMW, Munich** |
| 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 |

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| ▼ | **BMW, Munich** |
| 01/2015  03/2015 | **Software Tester**  ***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 |

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| ▼ | **BMW, Munich** |
| 11/2013  12/2014 | **Software Tester**  ***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 |

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| ▼ | **BOSCH AUTOMOTIVE, Stuttgart** |
| 08/2013  11/2014 | **Software Integrator**  ***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. |

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| ▼ | **BMW, Munich** |
| 01/2012  07/2013 | **Software Architect**  ***Automotive suppliers – Electric/Electronic Architecture***  **3d Top View System Software manage the vehicle surroundings : a virtual camera displays the car itself and the surroundings, helping the drivers to avoid obstacle (Driving Assistance System).**   * Software architect for the embedded software (model view architectural pattern), * CAN (Controller Area Network) library, * Development Multi Platform software, * Improving software quality, * Team support, * Improving team communication (web site), * Maintenance of Linux system, * Test-oriented development.   Tools/Skills: Entreprise Architect, C++, CAN, Linux, Windows. |

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| ▼ | **Bombardier Transportation, UK** |
| 12/2011  01/2012 | **Software Maintenance**  ***Infrastructure & Transport - IT & Corporate Network Services***   * Long term support for this embedded software (>10 years) * Support on location,   Tools/Skills: C++, Embedded Windows CE. |

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| ▼ | **HEINE OPTOTECHNIK, Herrsching** |
| 07/2010  11/2011 | **Software Architect**  ***Medical devices - IT & Corporate Network Services***  **HEINE Optotechnik creates a new generation of high tech medical instrument.**   * Software architect for the embedded software (model view architectural pattern), * State machine conception and development, * Conception and development of several functionalities, * Code documentation with doxygen, * Participation of wiki, * Maintenance of linux system.   Tools/Skills: C++, Qt. |

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| ▼ | **BOMBARDIER TRANSPORTATION, Crespin (FRANCE), VASTERAS (SWEDEN), Derby (UK)** |
| 08/2006  03/2010 | **Software Architect**  ***Infrastructure & Transport - IT & Corporate Network Services***  **IP Train NAT (Nouvelle Automotrice Transilien/Spacium 3.06) : Software Engineer.**   * Team coordinator for the development of the NAT HMI software embedded in trains, * Software design, coordination of several software, * Integrator for IHM Version, * Maintenance of linux, * PPC hardware validation, * Creation of a cooperative wiki on a server, in order to centralize the team knowledge.   Tools/Skills: Embedded Linux, C++, Qt. |

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| ▼ | **BOMBARDIER TRANSPORTATION, Crespin (FRANCE)** |
| 08/1999  2005 | **Software Engineer**  ***Infrastructure & Transport - IT & Corporate Network Services***  **“Virgin Train” class consists in a new generation of trains in United Kingdom, and will be quite a big step for the embedded software in general.**   * Design, development and tests of a HMI software embedded in trains. * HMI software development and integration. * Supplier technical interface (PEP / Kontron Belgium).   Tools/Skills: Embedded Windows CE, C++, MFC. |

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| ▼ | **Thomson CSF Airsys ATM, Bagneux, (FRANCE)** |
| 01/1998  07/1999 | **Software Developer**  ***Infrastructure & Transport - Aircraft program***  **In the realm of air control, Thomson upgraded its software, incorporating a new generation of communication standard (ASTERIX) in partnership with EuroControl. This software was sold to several customers worldwide.**   * Design, development and tests of software. * Programming of the coding / decoding layer within flexible software.   Tools/Skills: C++, gdb |

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| ▼ | **Thomson CSF, Bagneux, (FRANCE)** |
| 08/1997  01/1998 | **Software Developer**  ***Infrastructure & Transport - Aircraft program***  **Development of a macro-generated software for the management of air traffic (Management of several parallel businesses), in order to cope with denser aircraft traffic.**   * Development and tests of software.   Tools/Skills: C++ |

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| ▼ | **Dassault Electronics, Saint-Quentin in Yvelines (FRANCE)** |
| 05/1997  07/1997 | **Software Validation**  ***Space - Software - Simulators & Validation Tools***  **Dassault had to cope with Deadline problems.**   * Software workaround of a bugged hardware embedded on satellite.   Tools/Skills: Ada, Assembleur |

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| ▼ | **Hoechst, Paris La Défense (FRANCE)** |
| 01/1997  05/1997 | **Project manager associate.**  ***Pharmaceuticals - IT & Corporate Network Services***  **Hoechst starts out-sourcing its internal IT support.**   * Test of new Software. * Drafting of procedures for software installations, as well as setting environments Windows (NT3.51, NT4.0, 95, 3.xx...) on PCs connected in network. * Installation of the network LOTUS Notes for the whole company. * Creation of quality indicators for the hot line.   Tools/Skills: Windows, Visual Basic |

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| ▼ | **Caisse des dépôts et consignations, Issy les Moulineaux (FRANCE)** |
| 11/1996  12/1996 | **Financial data processing.**  ***Banking - IT & Corporate Network Services***  **The Caisse des dépôts needed a software upgrade.**   * Development of financial software.   Tools/Skills: MS Excel, Visual Basic |

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| ▼ | **NCR / Club Méditerranée, Paris (FRANCE)** |
| 06/1996  11/1996 | **Project manager associate.**  ***Public Sector - Consulting Services***  **The Club was moving its headquarters, bringing 600 new PCs at the new headquarters.**   * Management of the project under MS Project (50 people, 300 tasks). * Safeguard, then migration of the data, * Software standardization. |

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| ▼ | **Dassault Electronics, Saint Quentin in Yvelines (FRANCE)** |
| 01/1995  05/1996 | **Analyst and software engineer.**  ***Defense - Command, Control & Information Systems***  **Embedded software development for a French fighter, within a team of 50 engineers.**   * Management of various data-processing tools according to an object-oriented software development. The program exceeded one million lines. |

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| ▼ | **Direction des constructions navales, Paris. (FRANCE)** |
| 09/1993  08/1994 | **Nuclear Safety**  ***Defense - Nuclear System Safety*** |

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| ▼ | **Laboratoire d'Océanographie Dynamique et de Courantologie (LODYC), Paris. (FRANCE)** |
| 03/1993  06/1993 | **Scientific Engineer.**  ***Research - IT & Corporate Network Services***  ***Electronics - Software***  **Analysis and comparison of *in situ* data regarding the Tropical Atlantic's long waves, in accordance with a digital model of general oceanographic flowing, providing therefore a scientific expedition with fundamental source documents** |

Education

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| ▼ | **Studium** |
| **1993** | Engineering school - Physical Oceanography - ENSTA Paris Tech  ENSTA is the military school for weapons engineers.  **Paris - France** |

Sprachen

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| ▼ | **Sprachkenntnisse** |
| **FRENCH** | Native |
| ENGLISH | Fluent |
| GERMAN | B2 |

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