

• 45, clos de la Llanura
31130 Balma

- +33 6 H1 DD E N
- david.dmarec@proton.me
- <http://dmarec.fr>

- french, native tongue
- English, moderate

Abstract

Senior software developer. From the operating system to user interfaces, designing both software and hardware architectures. masters skills such as programming languages, libraries and platforms.

Work experience

2018 - now

Linux technical authority, Airbus Defence & Space,

Toulouse

| | |
|-----------------|-------|
| yocto/partition | ***** |
| shell/script | ***** |
| Linux/drivers | ***** |
| GCC/GDB | **** |
| toolchains | **** |
| git | **** |
| Architecture | **** |
| C/C++ | **** |

Groupe SII, ADS since 2020

Designing Linux embedded softwares (*C/C++*), ARM/Intel/SOC, scripting(*sh/bash*),

toolchains (*GCC/CMake/Makefile*), analysis (*GDB/perf/trace/ltnng/Vtune*).

Kernel development, network driver, MTD, bloc, filesystems, DRM/DPU, netlink interfaces.

Patch to improve performances, cross compilation, boot delays.

Designing full system (*Yocto*), diskless or single installer:*ramFS,NFS;EFI*.

Software developer(*C*) (*C++*) Desgin Architect and technical authority in the Linux team(*C*) (*C++*)

2017 - 2018

Software designer, Continental Digital Service, Smart Car/City

Toulouse

| | |
|---------|-------|
| C/C++ | ***** |
| Linux | **** |
| GCC/GDB | **** |
| CMake | **** |
| shell | **** |

Groupe SII

Designing Linux embedded softwares (*C/C++*), scripting(*sh/bash*), toolchains

(*GCC/CMake/Makefile*), debugging (*GDB/Valgrind*).

2011 - 2017

Software designer, G2Metric, Control and analysis measurements tools

Toulouse

| | |
|---|-------|
| WSP | ***** |
| C/C++ | **** |
| QT | **** |
| Win32 | *** |
| L <small>A</small> T <small>E</small> X | *** |
| lua | ** |

Designing measurement systems, from libraries (*C/C++*), graphical interfaces(*WSP/QT*), scripting (*lua/tcl*), to data provider.

- Wrote *OPC* client and server services, mainly for the company's **Pilot3D** software.
- Wrote devices drivers, camera and lighting controllers, for the company's image processing software **Lynx**.

2009 - 2011

Consultant, Areva, A350 pre-assembly jigs and tools

Toulouse

| | |
|-----|-------|
| WSP | ***** |
| OPC | **** |

Provide advisory service to help companies to build an harmonized solution for the pre-assembly jig and tools project.

- Analyse client's needs, avoid technical issues, provide integrated solution for each plants located at *Nordenham, Hamburg and StNazaire*.
- Design mock-up and interfaces on top of *Wonderware system platform*.

2006-2009

Software designer, GOSS international, press systems

Nantes

| | |
|------------------|------|
| C | **** |
| Codesys | **** |
| TCP,UDP/IP | **** |
| RT-Linux,VXWorks | **** |
| PID | *** |

Design, configure and maintain automation systems for printing machines, programing on top of multiples ports of Codesys and axis controllers.

- Wrote a driver to improve communications between a bunch of controllers and HMI systems(*Arcnet, IP, bus*).
- Commissioning around the world.

 Work experience, PLC

2002-2006**Field Technician, Keops-Automation, system integration**

Nantes

| | |
|-------------|-------|
| C/C++ | ***** |
| PL7-2/3/Pro | ***** |
| Omron | ***** |
| Panorama | *** |
| Oracle | *** |
| CVI | *** |
| MFC | *** |

Arcante (2002-2003)

Design and intergration of automated systems (PLCs, HMIs, databases and reporting solutions).

- Development of communication drivers via Ethernet and serial RS232 cards, reporting and alarms tools, command line interpreters and multiple libraries (*Modbus,TCP,DDE*).
- Build IP camera network and recording server *CAMTRACE for FreeBSD*.
- Build one game and its cabinet (*SDL*).

1999-2002**Field Technician, Snel Redon Dalmon,**

Rambouillet

| | |
|---------|-------|
| Intouch | ***** |
| PL7-3 | **** |
| VBA | *** |

Development of automated systems from conception to implementation at the field level. Experience with several PLC and HMI solutions.

1994-1999**Electro/Mechanical Maintenance Technician, Lyonnaise des eaux,**

Dreux

| | |
|------------------|-----|
| PL7-2/3 | *** |
| Electromécanique | *** |
| Topkapi | *** |
| WIT | *** |

Multi skilled maintenance engineer.Repair and maintain all production machinery and equipment in water treatment plants.PLC program set up and maintenance.

Education

- Brest, 1992: *Associate Degree in electric engieniering.*
- Guingamp, 1990: *C- High School Diploma.*

Skills

- Writing an publishing documents in french or/and English
- computing:

| | level | | projects |
|-----------|--|--|----------|
| languages | ★★★★ C | | >50 |
| | ★★★★ C++ | | >50 |
| | ★★★★ Visual Basic and VBA | | >20 |
| | ★★★★ PLC programming LD/FBD/ST/Grafceit | | >50 |
| | ★★★ L ^A T _E X | | |
| | ★★ Assembly 68HC11, 68000, Z80 | | ≈10 |
| libraries | ★★★★ C-Shell bash lua python | | |
| | ★★★★ QT | | >20 |
| | ★★★ Glib | | >10 |
| | ★★★ Boost | | >30 |
| | ★★★ API Win32 | | >20 |
| System | ★★★ Dot Net | | \$WSP |
| | ★★ MFC | | ≈10 |
| | ★★ SDL | | 1 |
| IDE | ★★★★ Microsoft Windows (XP to 7) | | > 50 |
| | ★★★★ FreeBSD(4 to12) | | > 10 |
| | ★★ Linux(debian, gentoo,Arch) | | 20 |
| PLC (IDE) | ★★★★★ vim | | |
| | ★★★★ Microsoft Visual studio (6 to 12) | | |
| | ★★★★ LabWindows | | |
| HMI | ★★★★ eclipse | | |
| | ★★★★ Schneider Télémécanique (PL72 to PL7 pro) | | >20 |
| | ★★★★ Omron (SysWin/CX-Programmer) | | ≈10 |
| | ★★★★ Intouch | | >20 |
| | ★★★★ Wondeware system platform(3.1 à 3.6) | | >20 |
| | ★★★★ Vijeo Citect 7.x | | 5 |

Misc

- Driver licence (1990)
- Following the *FreeBSD* project since branch 4
- Following the *Linux* kernel development
- Writer for the website *diablotins.org* until 2011; a wiki that hosted tips and howto's for *FreeBSD* users
- Contributor on the website *linuxfr.org*
- Maintain and install server (Web, Cloud, sftp, static pages, poudriere, VM) on top of *FreeBSD* or *Debian-Linux*.
- this document was released with the help of L^AT_EX