Patrick Deflandre

Design and development of embedded Linux systems

I am looking for opportunities that allow me to enhance and improve my GNU / Linux skills on projects if possible Open Source.
A startup atmosphere would not displease me.
I want to work in a team.

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Expériences

Embedded Linux

2013–2017 **Embedded system developer**, *GEA*, Meylan.
Integration of Linux into our equipment
I wish to develop this part of my job.
- Raspberry Pi - Parking access control by plate recognition
  - Number Plate Detections.
  - Access control by an outsourced service.
  - Standalone operation.
  - HMI under Qt
  - Internet access in 4G.
  - Programming in Python.
  - System configuration
  - GNU/Linux Raspbian distribution.
- Raspberry Pi - RS232 logger
  - Setting up elements of a corporate platform.
  - Using the Raspbian GNU / Linux distribution.
  - Setting up sftp, ssh, wi-fi access point.
  - Building packages for installation by the apt manager.
  - Creating installation scripts in bash.
  - Setting up a distribution repository for business packages (reprerepro, lighttpd).
  - Programming in Python.
- Atmel SAMA5D3X - Pre-study of an electronic card using a Linux kernel
  - Using buildroot, then putting Yocto into practice in this environment
  - Learning features offered by OpenEmbedded and Yocto projects.
  - System image generation, kernel, U-boot ...
  - Creating a custom embedded Linux distribution.
  - This project has not been industrialized
- Using Yocto
  - Learning system imaging techniques for embedded target.
  - Setting up a recipe
  - Building System Images

Embedded electronics

1998–2013 **Electronic designer**, *GEA*, Meylan.

Study and Design of electronic boards
- IP printer on thermal paper
  - Development of a control board for an APS HSP3500 print module.
    - ATMEL AT91SAM7X
    - Communication: by IP
    - Print speed: 250 mm/s
    - OS: FreeRTOS
    - Services: http, telnet, print server, tftp, file system miniFat.
- Serial communication printer on thermal paper
  - Development of a control card for 2 Axiohm RMDV or RMDG printing modules.
    - ATMEL AT91SAM7X
    - Communication: by RS232.
    - Print speed: 100 mm/s
    - OS: FreeRTOS
    - The 2 print modules work synchronously.
  - In any case, I've develop 4 generations of printers for my company.
- High visibility customer displays
  - Texas Instruments MSP430F149
  - Hardware and software development.
  - LED backlighting.
  - I have set up a modular structure, to allow quick adaptations for our different customers.
  - This display is available in many specific versions.
- Graphical Display
  - Hardware and Software development.
  - A board to refresh the display
    - PARALLAX SX28L
    - Written in assembler
    - Hard time constraints
  - A board for communication and layout
    - Infineon C163
    - Written in C
- Pedestrian access control in car parks
  - Reading RFID tags
  - I developed a proprietary bus protocol for inter-card token communication
  - Automatic detection of slave cards.
  - This product has been declined in several versions.
- Automatic Class Detection Simulator
  - Development for test needs in-house, but eventually sold to our customers too.
- Inputs / Outputs PLCs
  - Automatic gate management
  - Equipment management automats: alarms, equipment lighting, vehicles passing.

Technical Writer

1995–1998 **Technical support**, *GEA*, Meylan.

Description
- Writing test procedures
- Internal and external training

1993–1993 **Technical Writing Assistant**, *EDF Research and Studies Department*, Clamart.
Writing of technical study summary reports on network overvoltages
○ Reports read
○ Summaries of these reports on a few paragraphs

Testing and installation of industrial equipment

1993–1994 **Test Technician**, *GEA*, Meylan.
Factory Tests Installation at our customers
○ Electronic tests
○ Module tests
○ Tests of mounted assemblies
○ Troubleshooting electronic cards
○ Commissioning at our customers

1992–1992 **Technical internship DUT**, *EDF*, Saint-Vulbas, Bugey nuclear power station.
Pre-study of the replacement of an industrial automaton
○ First industrial experience
○ Taking into account a nuclear-type secure environment
○ The automaton had the function of opening the vessels of the reactors.
○ Telemecanique PLC TSX47
○ Grafcet

Choreographic arts

1986–1986 **Dancer**, *Ballet du Nord*, Roubaix.
○ Several shows in Roubaix and on tour in France.

1986–1986 **Dancer**, *Ballet théatre populaire en liberté*, Aulnoye Aymeries.
○ Shows in the area.

1985–1985 **Dancer**, *Carpentra Festival*, Carpentra.
○ Participation in a Opera Opera performance

1985–1985 **Dancer**, *Ballet of Paris*, Paris, Germany.
○ 3 months tour in Germany.

1980–1984 **Student dancer**, *Paris Opera*, Paris.
○ Participation in many shows at the Opera, but also touring France, Germany and Japan.
○ During these years I acquired a sense of detail, a capacity for work and an artistic sensibility.

Technical skills

Linux	Debian, Ubuntu, Raspbian	MicroPC	Raspberry Pi 2 and 3
Desktop	KDE, Gnome	IDE	Eclipse, Vim, Kate, Anjuta
Programming	GCC, GDB, JTAG	Languages	C, Assembler, Python, HTML, PHP, LaTeX , uml
RTOS	FreeRTOS	Python	virtualenv, stdeb
VCS	Git, GitHub, CVS, cervisia	Document	reStructuredText, markdown, doxygen
Open Source	OpenOCD, LwIP, miniFat, lib-dmtx, pifaceRTC	Debian system	build packages, repository, system configuration
Ethernet	TCP/IP, phy mii	HMI	Qt,Gnome
Electronics	Design, development, firmware, project management, testing	MicroProc	MSP430, C163, AT91SAM7X, ARM
Security	gpg, ssh	Database	MySql

Education

1991–1992 **DUT**, *IUT Joseph Fourier*, Grenoble, *Electrical Engineering and Computer Science*.
- For the sake of independence, I preferred to accelerate my professional training rather than to do an engineering school.

1988–1990 **Math Spé**, *Lycée Mariette*, Boulogne sur mer, preparatory school for entrance to Grandes Ecole, Math.
- I resumed my studies after a break of 2 years during which I devoted myself to the dance.

1980–1984 **End of 2nd Division**, *Paris National Opera*, Paris, Student of the Dance School.
- Two of my school friends have become Opera dancer stars.

Languages

French	**Mother tongue**	
English	**Medium**	*Read fluently, not much written and spoken pratice*

Interests

Music	Guitar, audio recordings
Sport	Hiking and cycling, climbing, dinghy
Open source	I adhere to free software principles

Licences

- Driver's license A
- Driver's license B
- Boats License
- Private Pilot License Airplane
- Glider Pilot Training

HR Manager   December 4 2017
Company
Mailing Address
City

Dear Madam, dear Sir,

I am looking for opportunities that allow me to value and improve my GNU / Linux skills on open source projects. A startup atmosphere would not displease me. I want to work in a team.

Passionate about discovering and learning new technologies, I have always sought to improve my products by including the advances at my disposal. I specialized in software development.

I designed hardware and developed software for fifteen years for embedded electronic systems based on micro-controllers. I used tools from the Open Source community: gcc, eclipse, openOCD, LwIP, FreeRTOS ... I develop all my projects in a GNU / Linux Debian environment. In my early days, I also used proprietary environments: Keil, IAR

I chose to train in the Python language for object programming, Raspberry for hardware support, and Yocto for the implementation of a specific distribution on a new hardware platform.

I use Git to manage my development and allow me to work in a team / community. I used CVS previously.

I want my new projects to be communicating and I'm interested in the world of connected objects.

I wish to join a new team because my goals are no longer in line with the priorities of my company.

The learning will never be finished, but I'm really getting to know the GNU / Linux Debian and Raspbian environment.

Sincerely,

Patrick Deflandre

Attached: curriculum vitæ

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