FRÉDÉRIC VERMEEREN

SW ENGINEER

French, 48 years old, 2 children

27 route des Pâturages
25240 Chapelle-des-Bois
France

+33 6 47 75 66 48

frederic.vermeeren@develoop.fr
www.develoop.fr

EXPERIENCE

SW Engineer – JAN 2021 – PRESENT
DEVELOOP – Chapelle-des-Bois, Doubs, France

Founder of Develoop.fr
Design and development of: mobile apps for Android & IOS, real time and embedded SW, Web sites.

Embedded SW Engineer / Platform Architect - JUNE 2009 – DEC 2020
NAGRA – KUDELSKI GROUP - Cheseaux sur Lausanne, Switzerland

JULY 2011 – PRESENT
As an **EMBEDDED SW Engineer**, acted as a **technical referent** for the design (**UML**) and development (**C** & **assembly language**) of **complete embedded SW solutions** on both **bare-metal** (PayTV smartcards) and **RTOS** systems.
Daily use of **makefiles, compilers, linkers & linker scripts, disassemblers, debuggers**, source control and **troubleshooting** tools: protocol decoders, emulators, JTAG, oscilloscopes.

Lead all the activities linked to Nagra's **SW simulators**, acting as the **interface between HW and SW teams**. Most of HW parts are simulated in SW: **CPU** (e.g. RISC-V) and peripherals (e.g. ROM, RAM, flash, cache, crypto block, DMA, IRQ, USB, **real time** UART for co-simulation with real HW).

JUNE 2009 – JUNE 2011
As a **PLATFORM ARCHITECT**, designed (**UML**) the mobile version of Nagra's CAS (Conditional Access System) for PayTV.

Major accomplishments
- **Enabled** early **embedded** developments by offering **SW simulators** of future HW platforms.
- Designed (**UML**) and developed (**Python**) most of the smartcard's **industrialization toolchains** (builder, personalization, patch, automated tests).
- Hard **troubleshooting** of complex systems (e.g. USB stack, **race conditions**, **communication protocols**).
- Contributed to set up a **CI** (Continuous Integration), and wrote many tools & **embedded** applications for **automatic testing**, **verification** and **validation**, linked to **version control** tool (Perforce).

Engineering Manager / SW Architect - MAY 2006 - MAY 2009
EYEP MEDIA - Renens, Switzerland

JULY 2008 – MAY 2009
As an **ENGINEERING MANAGER**, **lead** day-to-day activities of internal and out-sourced teams. Also acted as the **technical leader** for the development of *eyeP Communicator,* a Skype-like VOIP (Voice Over IP) solution based on a distributed architecture (Corba like).

MAY 2006 – JUNE 2008
As a **SW ARCHITECT**, I designed the company's multimedia **real time** streaming SDK.

Major accomplishments
- **People leadership**, careers management.
- Successful launch of *eyeP Communicator* product (Skype like) based on my own streaming SDK.

Firmware Engineer - FEB 2001 - APR 2006
VISIOWAVE - Ecublens, Switzerland

Lead the designs and developments of **real time device drivers** for surveillance cameras (involving **multi-threading** and **multi-processor** support) running on **embedded** Linux & Windows.
Acted as the **interface between HW and SW teams**.

PROFILE

SW Engineer
Embedded / Real Time / Mobile / Web

Design, Development, Automated testing of SW on Windows, Linux, bare-metal, and RTOS :
Cross-platform mobile app, Web site, Real time firmware, Kernel driver, IoT, SW simulatos of HW platform, CI / CD,…

SKILLS

- C/C++, Assembly, Python
- Flutter / Dart
- Web, Back-end
- HTML / CSS / JS / PHP / MySQL
- SW architecture / UML
- Embedded SW
- Real time
- Technical lead
- Agile method
- CI / CD
- Complex systems debugging

EDUCATION

ENGINEERING DEGREE
1992 - 1997
ESIEA – Paris, France

Recognized as the best performer of my class.

LANGUAGES

FRENCH - NATIVE
ENGLISH - FLUENT

INTERESTS

SCUBA DIVING (INSTRUCTOR)
ROAD CYCLING
MICROLIGHT PLANE (PILOT)
MODEL HELICOPTERS MAKING