

Yann CARDAILLAC

Embedded Linux Engineer

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5 years experience

0669909858

Technical Resume

Based in Nantes



Education :

Engineer in Computer Science and Electronic of Embedded System @**Polytech Sorbonne** (Paris, France)

Languages : French (mother tongue), English (fluent)

In few words :

Embedded Linux Integrator, Embedded DevOps, Trainer, Curious, Autonomous, always up for a Challenge

Experiences:

Contractor @**Eolane** : **Embedded Linux Engineer**

10/2021 – Today

Nantes (France)

Project In charge of the Embedded Linux BSP on an automotive project

- Yocto recipes integration
- Yocto CI/CD to allow customer to download prebuilt images
- Yocto update from Sumo to Dunfell (Uboot, Kernel)
- Development of custom software in C
- Automatic unit testing in C
- Integration of multiboot in Uboot
- Integration of a new chip from IMX6s to IMX6dual

Also in charge of minors projects such as:

- Python automatic electronic routing software for custom boards based on excel board description
- Python automatic unit testing and integration testing
- IMX8M mini peripheral integration
- Android AOSP CI/CD automatic builds
- Custom Intel Atom board integration with Ubuntu Server and drivers

Hardware : IMX6, IMX6s, IMX6d, IMX8

Software : C, Shell, python

Tools : Yocto, Buildroot, Git, gitlab CI/CD, Docker, SNMP, Unittest, Cunit

Employee @**Vaillant Group** : **BSP Engineer / HMI Developer**

06/2021 – 10/2021

Nantes (France)

Project Complete makeover of the boiler and heat pump product line, project of 30 persons split between France and Germany, my role was to maintain a bound on Embedded Linux topics between both R&Ds and to do HMI development

- Yocto integration of HMI app
- HMI development using Qt QML
- HMI development using Embedded Wizard
- App integration in LXC container
- Over the air update design

Hardware : IMX6

Software : C, Shell, Qt QML, Embedded Wizard

Tools : Yocto, LXC, Git, SVN, Jenkins

Contractor @SEPRO : **BSP Engineer**

11/2019 – 06/2021

La Roche Sur Yon (France)

Project Development of sepro's new robots in a R&D of 20 persons with the aim of refreshing the old product line, this involve creating from scratch the communication between the robots MPU (REST, websocket) and integrating new services for distant maintenance and monitoring

- Buildroot integrator and maintainer
- Embedded Linux architecture design
- Creation of team trainings regarding git and gitlab CI/CD
- Design of a CI/CD policy with test and deployment on target
- Creation of integration test campaigns
- Implementation of a REST API gateway tester
- Containerization of application software
- Over the Air update system rework

Hardware : IMX6

Software : C, Shell, Python, Lua

Tools : Buildroot, LXC, Git, Gitlab, Jenkins, Docker

mypy, pylint, Flask, Nose2, civetweb

Contractor @Thales : **Kernel Developer / Integrator**

12/2018 – 11/2019

Gennevilliers (France)

Project Development of a linux kernel driver for a state of the art audio board with 2 Analog Device DSP in parallel with 8 channels in and 8 channels out, this project was part of a major military vehicle project

- Development of a custom audio board kernel driver
- Prototyping at early stage of the product
- Hardware debugging
- Integration of existing audio software stack on Yocto
- Writing of technical documentation on Yocto for internal reuse
- System level integration of the board

Hardware : IMX8

Software : C, Kernel Dev, Shell, C++

Tools : Git, Yocto, Alsa ASoC

Contractor @SAGEMCOM : BSP Engineer and Bluetooth integrator

09/2017 – 12/2018

Rueil Malmaison (92, France)

Project Member of a 8 persons transversal team in SAGEMCOM's Set Top Box product line aimed on integrating several boards a month and integrating sub-parties software and applicative software. It's also responsible for the maintenance of the platform regarding hardware and connectivity

- New board integration in Buildroot
- Broadcom SDK integration and validation
- Packages integration in Buildroot
- Jenkins automated test development and maintenance
- Bluetooth Remote Control Unit integration
- Remote Control Over The Air update (Bluetooth)
- Remote Control audio streaming
- Development of Remote Control libraries

Hardware : Broadcom SoC, Arm

Software : C, Shell, Makefile

Tools : Buildroot, Git, SVN, Jenkins, BlueZ, Gstreamer

Other projects and experiences:

@ARInfo : Embedded C trainer

10/2022 – 01/2023

Nantes (France)

- Providing a 26 day professional training for future embedded software consultants
- 2 days git training
- 19 days C training
- 5 days embedded Linux training
- Complete trainings creation
- Coaching trainee all through their learning curve

Software : C

Tools : Git, Github

@Polytech Sorbonne : Software Testing teacher for graduating Embedded System students

Every year since 2020

Paris (France)

- Providing on my own a 30+ hours course on software quality, software testing, development process, management process and norms
- Complete makeover of the existing course to focus more on agility, DevOps and industrial software development

- Organizing a 16 hours workshop around the development of an app in Test Driven Development (TDD) managed with SCRUM teams of 10 students

Software : Python

Tools : Git, Github Actions (CI/CD), Trello

Volunteer @Heptalone : Fullstack Engineer

2018 – Today

Nantes - Paris

Project Heptalone is an association that offers a service of manuscript review for French authors

- Developing heptalone.fr front and back
- Maintaining and upgrading the website
- Infrastructure design and upgrade

Software : Node.js, ejs, js, HTML5/CSS

Tools : Git, Bootstrap, MongoDB, Docker

Intern @Elsys Design : Embedded Linux Engineer

03/2017 – 09/2017

Cachan (92)

Project Building a bluetooth streaming station with high quality audio using Yocto and Raspberry Pi, the purpose of the internship was to develop a DAC Linux driver, a userspace application for streaming audio with Bluetooth and integrating everything with Yocto

- Audio board driver development
- Writing Yocto recipes for company reuse
- Preparation of internal document on integration with Yocto
- POC with only custom software layers
- POC with only community software

Hardware : ArmV7

Software : C, Shell, Makefile, Kernel Dev

Tools : Yocto, Alsa ASoC, PulseAudio, BlueZ