# Jean-Baptiste Le Corre

## Junior Software Developer

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## Projects

### BOOTCAMP EMBEDDED DEVELOPMENT
MARCH 2023

**C, atmega328p, library-free, interrupts, timers, adc, uart, i2c, spi**

Development of a **firmware** with 10 modes - displaying values from adc potentiometers, sensors, clock (...) on a led screen, clock setting thru uart bus (...).

### BOOTCAMP DATA SCIENCE
FEBRUARY 2023

**Python, numpy, panda, matplotlib**

Matrix manipulations, image filters, implementation of **k-mean clustering algorithm**, feature engineering and ploting data with panda.

### TASKMASTER (2 VERSIONS)
JANUARY 2023

**C, system, multi-threading, pthread**

Implementation of a job supervisor (supervisord-like). Implemented my own **line editor** with history and **auto-completion**. Integration of a yaml parsing library for the configuration file. Implemented a minimalist logging library working with a **singleton**. Asynchronous version: Jobs and timers are managed with **signal handlers**. Timers are scheduled through a queue. Multi-threaded version: Study case I did for myself to dig multi-threading. Designed with a **producer-consumer** model to handle user input the safest way. Usage of mutex, semaphores, barriers, conditional locks and read/write locks.

### WOODY_WOODPACKER
SEPTEMBER 2022

**C, security, packer, ELF**

Shellcode **injection**, encrypt and inject self-decryption code into executable ELF binary target. Implemented **segment padding** injection technique (taking advantage of code cave after an executable load segment) as well as **elf shifting** if no codecave had been found.

### FT_LINUX
AUGUST 2022

**System, cross-compilation, kernel compilation, linux from scratch**

Built my own **linux distribution** following the **LFS** book. Started from a lightweight virtual Alpine release as a host, then built compilation toolchain, filesystem and finally compiled linux kernel.

### FT_TRANSCENDANCE
MARCH 2022

**reactjs, nestjs, websoket, postgresql, SQL, OAuth 2.0, docker-compose, APIs**

Web application of an online pong game with leaderboard, profile dashboard, chat interface. Implemented part of back-end, all **websocket** system and front-end in the end.

### WEBSERV
SEPTEMBER 2021

**C++98, HTTP, sockets**

Implemented a HTTP/1.1 web server, nginx-like. Using epoll() for linux & kqueue() for macosx to poll socket I/O. CGI handling. Profiling with siege.

### FT_CONTAINERS
JUNE 2021

**C++98, STL, template, SFINAE, data structures, iterators, constness**

Implemented some **STL containers**: map, list, vector, stack, queue with **time complexity** of algorithms equivalent to the STL. Implementation of **BST**, circular linked list.

## Professional experience

### SOUND ENGINEER
2014 - 2022

**Paris**

Sound engineer as independant for small filming companies. Volunteer in documentary filming (Mongolia, Kyrgyzstan) and live music recording and mixing.

### AUDIO TECHNICIAN
2015 - 2019

**AmpVisualTv, Paris**

Salaried in this french leader company in tv filming.
Extract of most notable events I worked on :

- September 2019 - UCI Road World Championships
- June - July 2019 - Africa Cup of Nations
- June - July 2018 - FIFA World Cup
- September 2015 - African Games

Student passionate and curious about tech. Exploring and digging several fields of computer science (system, cybersecurity, devops, AI, web). I am now looking for an **internship** of 4-6 months.

## Education

**DIGITAL TECHNOLOGIES ARCHITECT**
**42 Paris school**
2020 - TODAY

**BTEC IN AUDIOVISUAL - AUDIO SPE**
**Lycée Léonard de Vinci, Montaigu**
2012 - 2014

## Skills

- **C • C++ • python3 • asm • reactjs • nestjs • bash**
- **git • docker • kubernetes • linux • gdb • make**
- **problem-solving • autonomy • attention to detail**

## Languages

**FRENCH**
native

**ENGLISH**
intermediate

## Interests

**ASSOCIATIONS**
Videobus (teach filmmaking to children)

Le Fieald (humor open scene)

**SPORT**
Basketball, bmx, climbing, sailing, judo

**MUSIC**
Guitar