Jean-Baptiste Le Corre

Junior Software Developer

github.com/Jibus22 in in/jle-corr/ https://jibus22.github.io

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 javascript typescript reactjs
 nodejs SQL sass bash
- git github docker •
 postgresql 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