



## Anthony Bara

Software Engineer

### Profile

From working with Grafset on old programmable logic controllers to studying on the renowned French educational platform OpenClassRooms, and finally joining 42 school.

My path to becoming a software engineer has been an exciting one, and each new road I take now is even more so. Passionate about programming and eager to learn, over time I have learned that my main strength is my tenacity.

### Contact

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### Languages

- French (native)
- English

### Interests

- 🎵 Guitar
- 🎮 Gaming
- pencil 3D modelling, pixel art
- 🌲 Fishing

## Experience

### Software engineer

P1 SECURITY, Paris. Since January 2020

- As part of the Network Intrusion Detection System (NIDS) development team, focusing on Telecom signaling traffic.
- Development, maintenance, technical debt resolution and testing across all layers of the software.
- Backend:** C, Lua, Python, Django, Bash
  - Rework and improvement of the asynchronous REST API client, with strong configuration constraints.
  - Improvement of the packet history system
  - Rewrite and improvement of the Elasticsearch instance manager (Mappings, Templates, Lifecycles)
  - Added support for OpenIDConnect
- Frontend:** CSS, JS, Kibana
  - Creation of Kibana visualizations and dashboards.
  - Integrations of Kibana views into the software's web interface.
- Database:** Redis, Elasticsearch
  - Production-ready tool for handling automatic database migration after Elasticsearch upgrade.
  - Resolution of data format changes, without loss (10 to 40 million documents).
- Continuous Integration:** Jenkins, Python, bash
  - Jenkins devops tasks (one master node and five agents).
  - VMs maintenance, test pipeline updates, unit tests, functional tests, end-to-end tests.

### SDK software developer for a robot.

BLUE FROG ROBOTICS, Paris. May 2019 – October 2019

- Development of new features for the robot, focusing on providing a good public interface for the SDK users (C#/Unity).
- Maintenance of the existing code base.
- Code reviews and agile methodology.

### Robot application developer.

BLUE FROG ROBOTICS, Paris. September 2018 – March 2019

- Application development using internal SDK (C#/Unity).
- Development of an app to easily run non-regression automated tests.
- Rework and maintenance of existing apps.
- Code reviews and agile methodology.

### Embedded development, mechanical and electronic design

MAINBOT Paris. November 2016 – April 2017

- Development of the first Winky robot prototype.
- Mechanical design for 3D printing, using Solidworks.
- Printed circuit board design using Kicad.
- Development on Arduino and Raspberry Pi. (C/C++)

### Industrial designer

BOUBIELA MORET Saint-Quentin. May 2013 – November 2015

- Design of loading equipment according to specifications.
- Creation of 3D models and fabrication plans using Solidworks.
- Monitoring of part manufacturing and machine assembly.



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### Projects

#### Tribute to Dofus

- Enjoy learning Rust while developing a multiplayer RPG.
- Status: In progress
- Initiative: Personal project

XV

- Animated industrial tasks editor and viewer.
- Status: Finished
- Initiative: 42 School

## 🎓 Education

### • Rust Learning

Autodidact. Since February 2024

- Started learning by reading documentation (Rust Book).
- Then practiced with basic exercices, data import with JSON and basic client-server chat implementation.
- Creation of [Tribute to Dofus](#), a multiplayer RPG project:
  - The only ambition is to learn Rust and enjoy trying to develop a multiplayer game.
  - Graphic client using 'piston' crate.
  - Client-server communicate using [gRPC](#) with 'tonic'.
  - Server-database communicate using an ORM, with 'diesel'.
  - Asynchronous tasks for requests, using 'tokyo'.
  - CLI tool to manage players accounts, using 'clap'.
  - Tilemaps are imported as JSON to practice with 'serde'.
  - Game maps drawn in pixel art using [Aseprite](#).

### • Certificate of Architect in digital technologies

42 School Paris. November 2015 – January 2020



- Learning through project implementation.
- Peer code reviews, and reading documentation.
- Intensive C practice by rewriting well-known programs such as malloc, client-server ftp, basics of Wolfenstein 3D.
- Nibbler, a snake game with several graphic interfaces by using dynamic graphic library switching at runtime (C++).
- XV, an animated industrial task editor and viewer. (C# - Unity).

### • Bachelor's Degree in Computer-Aided Design engineering

UPJV Saint-Quentin. September 2012 – May 2013

- Mastery of CAD tools.
- Mechanical engineering studies and industrial project management.

### • BTEC Industrial Mecanic and Automation

Condorcet High school Saint-Quentin. September 2010 – June 2012

- Design and maintenance of industrial machines and automated systems.

## ★ Skills

●●●○ C

●●●○ Linux

●●●○ Lua

●●●○ Elasticsearch

●●●○ Bash

●●●○ Kibana

●●○○ Python & Django

●●○○ Redis

●●○○ VirtualBox / Vagrant

●○○○ VMWare/ESXi

●●○○ Rust - **Active learning**

●○○○ Javascript

●○○○ HTML/CSS

●○○○ Docker

●○○○ C#

●○○○ C++

●○○○ PostgreSQL