



Anthony Bara

Software Engineer

Profile

From working with Grafcet 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

📍 Valenciennes (59)
✉ abara.pro24@gmail.com
☎ +33 6 31 54 80 24
🌐 github.com/banthony42
📱 [anthonybara](#)

Languages

French (native)
English

Interests

🎸 Guitar
🎮 Gaming
🖌 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 exercises, 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 Mechanic and Automation

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

- Design and maintenance of industrial machines and automated systems.

★ Skills

●●●●○ C

●●●●○ Lua

●●●●○ Bash

●●●○○ Python & Django

●●●○○ VirtualBox / Vagrant

●●●○○ Rust - **Active learning**

●●○○○ HTML/CSS

●○○○○ C#

●○○○○ PostgreSQL

●●●●○ Linux

●●●●○ Elasticsearch

●●●●○ Kibana

●●●●○ Redis

●●○○○ VMWare/ESXi

●●○○○ Javascript

●○○○○ Docker

●○○○○ C++