



# Victor Xirau Guardans

Computer Engineer / Barcelona

I am a Computer and Multimedia Engineer keen to explore the frontiers of technology. With a solid foundation in coding and interest for design, I have consistently pursued projects that challenge and broaden my skills.

My interests span across Computer Architecture, Machine Learning, Mobile App/Web development, among others. By constantly updating my skills and keeping up with industry advancements, I aim to contribute to innovative research projects.

Phone: +34 648 463 156 | Email: [victorxirauguardans@gmail.com](mailto:victorxirauguardans@gmail.com) | B. Date: 22.01.2000

LinkedIn: [linkedin.com/in/victor-xirau/](https://www.linkedin.com/in/victor-xirau/) | Github: [github.com/vxirau](https://github.com/vxirau) | Website: <https://victorxirau.tech>

## Experiences



### Barcelona Supercomputing Center (BSC)

#### Junior Research Engineer

September 2023 - Present

- Memory Systems for High-Performance Computing.

#### Internship

February 2023 - September 2023

- External visitor in the Memory Technologies team.
- Conducting research for my Computer Engineering Degree's Final Thesis.
- Analyzing, tuning and evaluating a PIM-based architecture.



### La Salle BCN

#### Lecturer

September 2023 - Present

- Introducing first year university students to programming using C.

#### Teacher Assistant in Operating Systems

September 2021 - Present

- Designed and implemented exercises and guides in C on multiple OS tools allowing students to learn about system resources, how processes communicate with each other and how to do so while keeping the system as efficient as possible.
- Asses their work and interviewed students to make sure they attained the necessary skills.

#### Software Engineering Research Group Intern

January 2023 - September 2023

- Provided assistance to the Research group.
- Contributing to publications, document translation and engaging in problem-solving sessions to address any challenges faced by fellow members.

#### Teacher Assistant in Programming Languages (Compilers)

February 2022 - July 2023

- Guide students through the process of creating their own programming language and designing a grammar for it.
- Guide students implementing a compiler that could process the language and end up generating executable MIPS x64 assembly code.



### Freelance Developer

July 2020 - September 2023

- Freelance web and app developer, collaborating with various companies and individuals.



### Private Tutor

October 2018 - November 2022

- Taught programming in C to first year students.
- Private tutoring in microprocessor assembly programming for the PIC18F4321 microcontroller and cooperative multitasking in C.
- Taught web design, covering HTML, CSS, JavaScript, CSS frameworks, front-end frameworks, server-side frameworks, and website deployment.



### ADUNAS - Consultants in Executive Search

#### Summer Internship

July 2018

- Database maintenance and Multimedia resources design.



### BeRepublic

#### Digital Transformation Consultant

July 2017

- Intern training on front and back end web development.

## Education



### Double Degree in Computer and Multimedia Engineering

#### La Salle BCN

Double degree that combines many notions on programming and UI/UX.

2018-2023



### Technological Baccalaureate

#### La Salle Bonanova

2016-2018

## Certifications



### C2 Proficiency

Cambridge Assessment English

July 2018



### Cisco Certified Network Associate Routing and Switching (CCNA)

CISCO

July 2020



### Deep Learning A-Z™: Hands-On Artificial Neural Networks

UDEMY

April 2021



### Tensorflow Deep Learning - Data Science in Python

UDEMY

April 2021

## Languages



Spanish, Catalan · Native



English · Bilingual



French · Mid-Level

# Awards

## UPC Hackathon

October 2019

- Participated in the hackathon organized by UPC and faced the challenge offered by Vueling.

## 1st Prize MSchools App Awards

July 2016

- First Prize on MSchools App Awards on leisure and Personal management.
- The Kofu app is a social network where you could find people's social handles by searching the user with his or her real name.

## HP CodeWars

April 2016

- Participated on HP CodeWars tournament ending in 11th position.

# Technical Highlights

 C

 JavaScript

 Swift

 C++

 Linux Kernel

 Android

 Python

 Bash

 Flutter

 Assembly

 Java

 PHP

# Recent Projects

## Dyvide

February 2022

- Social media app that empowers drivers to share their travel costs with their friends.
- Users get tailored costs based on their vehicle type and consumption, as well as daily updated gas prices, making it a cost-effective and environmentally friendly solution for group travel.

**Skills:** Flutter · Firebase · Go · AWS EC2

## Theatro

May 2022

- Movie ChatBot for Telegram as well as server to handle the requests.
- The server was capable of handling the Telegram Queries, interacting with DialogFlow and querying a database I created using Neo4J and GraphQL.

**Skills:** Python · Javascript · SQL

## VLAM: Compiler

May 2021

- Compiler for the VLAM language I designed together with university colleagues.
- The VLAM language was intended to be like C++. Both in functionalities and syntax.
- Compiler was capable of translating the input file into executable MIPSx64 assembly code, and implemented many optimizations to ensure the best use of resources.
- Capable of performing conditionals, loops, both simple and complex operations, recursive functions as well as multiple scope handling and was capable of recovering from many errors.

**Skills:** Java · OS · Assembly · Compiler Design

