

BERNARDO CARVALHO

Software Developer

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Objective

Join the market as soon as possible aiming the gain of professional experience, deepening of knowledge in the field and establishment of a network in the process.

Summary

Graduated in *Economics* and currently a freshman in *System Analysis and Development*, my contact, and consequent familiarity, with technology dates back to 2005, the year I got my first computer. On the subject of computer science, until then, my knowledge took place online through self-teaching and by taking courses, with *CS50P* and *CS50x* as highlights, courses offered free of charge by *Harvard University* through the *CS50 program*. Member of *Senatec* as a full-stack developer since May 2024, I also study information security at *TryHackMe*.

Experience

Senatec — Centro Universitário Senac RS (UniSenac)'s junior company, Pelotas, RS

Full-stack developer | 2024 – present

Education

Centro Universitário Senac RS (UniSenac), Pelotas, RS, Brazil

Bachelor of Technology - BTech in System Analysis and Development | 2024 – present

Universidade Federal de Pelotas (UFPel), Pelotas, RS, Brazil

Bachelor's degree in Economics | 2017 – 2021

Colégio Gonzaga, Pelotas, RS, Brazil

High school diploma | 2014 - 2016

Languages

- English (advanced).
- Portuguese (native).
- Spanish (intermediate).

Featured projects

Senatec's system — application to manage Senatec

<https://github.com/senatecPelotas/SistemaSenatec/> (restricted access)

Continuing development of the web application that will be used to manage the company, as well as creating the archive of all employees and projects. Works with technologies such as Express.js, MySQL, Sequelize on the back-end and Next.js, React, Tailwind CSS on the front-end. I work mainly as a back-end developer, assisting the front-end team when necessary.

NLW Unite Node — Participant management for in-person events API

<https://github.com/bgbaine/nlw-unite-node>

A participant management for in-person events API built in Rocketseat's NLW-Unite event. Uses concepts such as coding best practices, frameworks (*Fastify*), object-oriented programming, programming logic, regular expressions, JavaScript and TypeScript.

Technical skills

Programming languages

- Comfortable with *C, Java, JavaScript, Python, SQL, TypeScript*
- Knowledge in *C++*.

Web development

- Comfortable with *HTML, CSS, Markdown*.
- Experience with *MySQL, SQLite databases*.
- Experience with frameworks *Bootstrap, Express.js, Fastify, Flask, Tailwind CSS*.

Version control

- Comfortable with *Git, GitHub*.

Operating systems and virtualization

- Comfortable with *Linux* distributions, *Windows*.
- Experience with *Docker, VirtualBox, VMWare*.

Softwares and tools

- Comfortable with *Bash, DOS, Zsh* shells.
- Experience with back-end development applications like *DBeaver, Node.js, Postman, Prisma, Sequelize*.
- Experience with code editors like *Nano, Neovim, Vi, Vim, VSCode*.
- Experience with information security tools like *Burpsuite, enum4linux, Netcat, Nmap, Metasploit, Wireshark*.
- Experience with office applications like *Google Docs, Google Sheets, Google Slides, Microsoft Excel, Microsoft PowerPoint, Microsoft Word*.
- Experience with multimedia tools like *Adobe Photoshop, Figma, Vegas Pro*.

Courses

- CS50x - *CS50's Introduction to Computer Science* (2023).
- CS50P - *CS50's Introduction to Programming with Python* (2023).
- Santander's Bootcamp – *Back-end development with Java* (2024).
- Santander Coders – *Data Science with Python* (2024).
- TryHackMe – *Complete Beginner learning path* (2024).

Behavioral skills

- Communicative
- Fast learner
- Organized
- Proactive

Understanding of concepts

- Coding best practices.
- Cryptography (symmetric and asymmetric).
- Data structures (queues, stacks, linked-lists, trees, binary trees, hash tables and tries).
- Debugging.
- Frameworks.
- Hashing.

- Memory management (pointers, dynamic memory allocation, stack, heap and buffer overflow).
- Networks.
- Object-oriented programming (OOP).
- Procedural-oriented programming (POO).
- Programming logic.
- Protocols.
- Regular expressions.
- Search algorithms (linear search and binary search).
- Sort algorithms (bubble sort, selection sort and merge sort).
- Unit testing.

Other projects

CS50P's Final Project — Handball game in Python

<https://github.com/bgbaine/handball>

Handball clone, a game inspired by the famous *Atari's Pong*, and made for the *Coleco Telstar* (1976). Written in *Python*, makes use of the *Pygame* library. Uses concepts such as *classes*, *object-oriented programming (OOP)*, *unit tests (pytest)*, *type system (Mypy)*, *docstrings* formulation and formatting and *Markdown* language to elaborate a README file.

Landing pages — Figma

Restaurant and travel app

Edécis Gourmet's, a mock restaurant, and *NeWorld's*, a mock travel app, landing pages. Both have a sitemap and style guide (color palette and typography).

Codewars — Solved Katas

<https://github.com/bgbaine/codewars>

My solutions for multiple *Codewars' kata* (a.k.a. programming challenges) using multiple languages. Uses concepts such as *algorithms*, *coding best practices*, *programming logic*, *C*, *JavaScript* and *Python*.

System Analysis and Development repository

<https://github.com/bgbaine/ads>

Contents, exercises and applications for every course taken by me in System Analysis and Development. Uses concepts such as *organization*, *code versioning with Git and GitHub integration*.