

Pedro Castro



Profile

Informatics and Computing B.E. student at FEUP with a strong interest in problem-solving and algorithm design. Passionate about learning new technologies and contributing to projects, aiming to develop efficient and practical solutions. Open-source supporter.

Looking for a summer internship to grow as a developer while making meaningful contributions to real-world projects.

EDUCATION

Faculty of Engineering of the University of Porto

Porto, Portugal

Bachelor in Informatics and Computing Engineering

September 2022 - Present

EXPERIENCE

Trainee

October 2024 – Present

<u>NIAEFEUP</u> Porto, Portugal

- Developing a mobile app in Flutter made for students to help them organize their academic life and schedule more easily.
- Developer of the College Student's Association website using Svelte, Tailwind CSS, Kotlin and Spring Boot.

Projects

Pacman | Java, SOLID Principles

December 2024

- Developed a text-based adaptation of the classic Pac-Man game using Java.
- Designed the project following SOLID principles for maintainability and scalability.
- Implemented object-oriented programming (OOP) techniques to modularize game logic and improve code reusability.

Water Supply Management Analysis Tool | Max-Flow Graph Algorithms

April 2024

- Developed a graph-based tool to assist the Management Team of a water supply network in Portugal.
- Implemented Max-Flow Graph Algorithms to analyze network metrics, evaluate resilience and optimize resource allocation.
- Provided data-driven insights for resource allocation and identified potential improvements.

L.EIC Schedules Management System | Schedule Management, Sorting, Searching

November 2023

- Created a system for managing a course schedule efficiently.
- Integrated algorithms for modifying, searching, viewing, sorting, and listing schedules.
- Designed an intuitive CLI interface for improved accessibility and usability.

Image Editing Program $\mid C++, CLI, Image Processing$

May 2023

- Developed a simple C++ command-line tool for image manipulation tasks.
- Implemented key features such as cropping, mirroring, inverting, and pasting images.

TECHNICAL SKILLS

Programming Languages: C, C++, RISC-V Assembly, Java, Python, SQL, HTML, CSS, JavaScript, TypeScript,

Dart

Frameworks: JUnit, Mockito, Flutter, Vue.js

Software Development: Object-Oriented Programming, Design Patterns, Refactoring, Unit Testing, Debugging,

Linux, Git

Algorithms and Data Structures: Algorithm Analysis, Algorithm Design, Graph Algorithms

Databases and Data Analysis: SQLite, PostgreSQL, MySQL, Pandas, Relational Algebra, Database Design

LANGUAGES

Portuguese: Native English: Highly Proficient