

# Pedro Castro



## Profile

Informatics and Computing B.E. student 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.

#### **EDUCATION**

#### Faculty of Engineering of the University of Porto

Porto, Portugal

Bachelor in Informatics and Computing Engineering

September 2022 - Present

# EXPERIENCE

Recruit

October 2024 – Present

NIAEFEUP 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.

Water Supply Management Analysis Tool | Max-Flow Graph Algorithms

April 2024

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

 $\textbf{L.EIC Schedules Management System} \mid \textit{Schedule Management, Sorting, Searching}$ 

November 2023

- Created a system for managing a course schedule efficiently.
- Implemented tools for modifying, searching, viewing, sorting, and listing schedules.

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

May 2023

- Developed a simple C++ CLI tool for image manipulation operations.
- Implemented 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

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

Algorithms and Data Structures: Algorithm Analysis, Algorithm Design, Graph Algorithms Databases and Data Analysis: SQLite, MySQL, Pandas, Relational Algebra, Database Design

## LANGUAGES

Portuguese: Native English: Highly Proficient