

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.

L.EIC Schedules Management System | 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.

$\textbf{Image Editing Program} \mid \textit{C++}, \textit{CLI}, \textit{Image Processing}$

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