

# Diogo Nápoles

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## EDUCATION

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- **Polytechnic of Porto - School of Engineering** Porto, Portugal  
*B.Sc in Computer Engineering; 16/20* *Sep. 2021 – Present*
- **Colégio Novo da Maia** Porto, Portugal  
*High School; 19.4/20* *Sep. 2018 – July. 2021*

## EXPERIENCE

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- **DevScope** Porto, Portugal  
*AI Research & Development Intern* *Feb. 2024 - Present*
  - **Real Estate Recommendation Algorithms:** Developing recommendation algorithms tailored to the real estate market. Collaborate with team members to design and implement scalable code.
  - **API Development:** Designing and implementing a Python-based API for a recommendation system. This API is intended for integration with real estate websites to provide tailored property recommendations to users.
  - **Advanced Filtering Techniques:** Conducting research on content-based filtering and collaborative filtering to improve recommendation quality. Analyzing and addressing limitations in both approaches to propose optimal solutions.

## PROJECTS

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- **RobDroneGo — GitHub:** RobDroneGo is a system designed to control fleets of robots within a university campus. Developed with a combination of C#, Node.js, Angular, Three.js, and Prolog, the system enables efficient task management and pathfinding for robot fleets. Advanced pathfinding algorithms, including A\*, were utilized to optimize robot navigation and task execution. The system includes 3D visualization capabilities for real-time monitoring of robot paths, enhancing user understanding and system control.
- **eCourse — GitHub:** Developed a remote learning platform in the university lab using Java and Spring framework. The project aimed to manage school courses with features like shared boards, exam structure design, automatic exam generation, and automated correction after student submission. Domain-Driven Design was employed for the project's architecture.

## PROGRAMMING SKILLS

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- **Programming Languages:** C, C#, C++, Java, JavaScript, Python, SQL, TypeScript
- **Technologies:** Angular, Docker, Git, Java Spring, Linux, MongoDB, MySQL, Node.js, .NET, Pandas & Numpy, React.js, Three.js
- **Methodologies:** Agile, CI/CD, DDD (Domain-Driven Design), Functional Programming, OOP, REST, Scrum
- **Languages:** Portuguese (Native), English (Advanced), Spanish (Beginner)