# Paco Algar Muñoz

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## ABOUT ME

Passionate about technology and computer science, I am known for my curiosity and self-taught mindset. I enjoy taking on new challenges and continuously expanding my skill set. I have developed personal projects outside academic and professional settings in a variety of areas, including artificial intelligence (AI), web development, systems programming, and game development.

#### **EDUCATION**

## University of Córdoba

B.S. Computer Science and Engineering

# Munster Technological University

Erasmus Program

Sep. 2021 - Jun 2025

Córdoba, Spain

Sep. 2024 – Dec 2024

Cork. Ireland

## SKILLS

**Soft Skills**: Teamwork, Strong organizational and time management skills, Self-motivated and committed to continuous learning, Problem-solving mindset, High sense of responsibility

Technical Skills: Artificial Intelligence, Machine Learning, Data Science, Web Development, Game Development,

Databases, CI/CD, Data Structures, Time Series Analysis, Recommender Systems

Languages: Python, Rust, C, C++, Java, JavaScript, TypeScript, SQL, LaTeX, PHP

**Technologies**: Git, PyTorch, PyTorch Lightning, TensorFlow, Laravel Framework, Scikit-learn, NumPy, Pandas, Matplotlib, MySQL, SQLite, PostgreSQL, TimescaleDB, React, Astro, Spring Boot Framework, FastAPI, Docker, RayLib, Bevy Engine

# EXPERIENCE

#### Internship in Computer Engineering

Magtel

 $\bullet\,$  Development of AI algorithms for prediction

- Implementation of models for digital twins
- Web development for information display
- Preparation of technical documentation on algorithm development, construction, and testing
- Support for specific departmental projects
- Assistance in preparing new R&D proposals

#### LANGUAGES

#### Spanish

Native

## English

Advanced

## **PROJECTS**

**UcoRecSys** | Application of recommendation systems in educational settings. | Python

• https://github.com/Pacatro/UcoRecSys

**MiniNN** | A minimalist Deep Learnig crate for the Rust programming language. | Rust

• https://github.com/Pacatro/mininn

**RayLife** | A simple implementation of the Conway's Game of Life using RayLib. | C

• https://github.com/Pacatro/raylife

**Pong** | The classical videogame Pong implementing with the Bevy Engine. | Rust

• https://github.com/Pacatro/pong

Feb 2025 – May. 2025

Córdoba, Spain

**Pseudocode interpreter** | *Implementation of a pseudocode interpreter.* | C++

• https://github.com/mayumar/Interprete-pseudocodigo

Summer Camp | Web-based system for summer camp management. | Java

• https://github.com/Pacatro/summer\_camp

Battleship | Implementation of a multiplayer TCP/IP server for playing Battleship. | C++

• https://github.com/mayumar/Battleship

ML Models | Implementation of differents models for solving Machine Learning problems. | Python

• https://github.com/pathsko/Modelos-AA

Metaheuristics | Implementations of differents metaheuristics for solving ML problems. | Python

• https://github.com/pathsko/Metaheuristicas

# ACTIVITIES

# Participant in the AdaByron Programming Competition

2025

University of Córdoba

Córdoba, Spain

- Selected as one of the university's representatives in a regional competitive programming event focused on algorithm design and problem-solving.
- Collaborated in a team environment to tackle a series of complex algorithmic challenges under time constraints using C++ and Python.
- Strengthened skills in data structures, dynamic programming, and efficient code implementation.