María Cribillés Pérez

in linkedin.com/in/mariacribillesperez/

github.com/mcribi/

Education

Professional school of music of Granada

Sept 2010 - June 2020

Elementary Degree in Flute 2010-2014

Professional Degree in Flute (specialising in composition and piano) 2014/2020

University of Granada (UGR)

Sept 2020 - July 2025

Bachelor's Degree in Computer Engineering

- Coursework: Artificial Intelligence, Deep Learning, Machine Learning, Computer Vision, Web Development, Computing and Intelligent Systems.
- Cum Laude in Intelligent Systems Techniques, Machine Learning and Metaheuristics.

University of Granada (UGR)

Sept 2020 - June 2026

Bachelor's Degree in Mathematics

o Coursework: Algebra, Analysis, Geometry, Statistics and probability, Applied Mathematics.

University of Trieste

Sept 2023 - July 2024

Bachelor's and Master's Degree in Mathematics

- Erasmus Program: One year Erasmus exchange with both master's and bachelor's degree subjects.
- Cum Laude in Technology in Mathematics Education

Experience

Extracurricular Internships

DaSCI, Granada

 $\label{lem:andalusian Inter-University Institute in Data Science and Computational Intelligence \ (DaSCI)$

March 2025 - June 2025

I have done a three-month internship at DaSCI institute for research, liaison and contact with medical specialists; data acquisition and preparation to apply ML techniques; design a protocol for lung biopsy testing.

Private teacher Online

I teach mathematics and programming from intermediate to advanced level, including university level.

February 2023 - Present

Projects

TFG: Predicting Complications in Lung Biopsies using AI

- Predictive system for post-biopsy complications. Developed an AI-based model to predict whether CT-guided lung biopsies would result in complications, using 3D medical imaging and clinical tabular data.
 Explored Deep Learning, Radiomics, pre-trained, and multimodal approaches, evaluated via cross-validation and explainability methods.
- o Tools Used: Python, Scikit-learn, Torchvision, MONAI, Seaborn, Matplotlib, Pandas, Numpy and Pydicom.
- o Mark: 10 of 10.

Medical Image Segmentation 3D and 2D

- 3D and 2D computer vision project with medical imaging. Analysis of volumetric images through various types of convolutional neural networks (CNN) and segmentation of these images. Dataset KiTS23 (Kidney Tumor Segmentation Challenge 2023)
- o Tools Used: Python

3D Geometric Modelling and Computer Graphics

https://qithub.com/mcribi/IG

- 3D visualization project with geometric modelling, hierarchical modelling, animation, cross-platform graphic libraries and interaction
- ∘ Tools Used: C++, OpenGL

New Interaction Paradigms

https://github.com/carmenazorinm/Menu-NUI

- o Natural User Interface (NUI)
- o Tools Used: Unity, C#, Android Studio, Leap Motion

Artificial Intelligence

https://github.com/mcribi/practica1_IA ☑ https://github.com/mcribi/practica2_IA ☑ https://github.com/mcribi/practica3_IA ☑

- Intelligent systems in an open world, reactive/deliberative agents, games.
- o Tools Used: C++

Web Application Development

https://github.com/mcribi/DAI ☑

- Component-based development for web services. Development of advanced client-side applications: programming in web browsers, dynamic HTML.
- o Tools Used: HTML, JavaScript ES6, CSS.

Educational chatbot on Telegram (In progress)

https://github.com/mcribi/Educational-programming-chatbot

- Educational chatbot awarded best idea in the GranaDev scholarship. Bot for learning to program with exercises, theory, and programming.
- Tools Used: Python, Telegram Bot API, SQLite, SQLAlchemy, AWS and Alembic.

Technical Skills

Languages: C++, Python, Java, C, C#, SQL, JavaScript, Ruby.

Language

Spanish Native

English: B2 First Cambridge

Italian: B1 Plida

Courses and participations

July 2018: Scholarship from the Spanish Ministry of Education: Science Camp 2018. Astrophysics project at the Teide Observatory.

November 2019: Selected to visit the CERN facilities in Switzerland.

July 2022: National meeting of mathematics students in Valencia, Spain.

July 2023: National meeting of mathematics students in Badajoz, Spain.

July 2024: National meeting of mathematics students in Madrid, Spain.

May 2025: ADIA Lab International Summer School 2025 on "Explainable AI" in DaSCI, Granada for master's and PhD students with featuring high-caliber speakers from diverse backgrounds in xAI and related fields.

July 2025: Winner of the GranaDev Summer of Code scholarship. Awarded as the best open source proposal related to education or other social benefits. Idea: Educational chatbot on Telegram to learn how to code for beginners.

Additional Information

Availability: After February 2026, full geographic and time availability.