Omar López Rubio

Professional Profile

Computer Scientist, Data Analyst, and Tutor. Highly skilled in data manipulation and analysis, with experience in deploying advanced machine learning models on supercomputers such as Marenostrum 5.

Education

Universitat Politècnica De Catalunya - FIB, Barcelona

Master in Data Science

October 2022 - October 2024

Thesis on Secured Mammogram Generation using GANs and Diffusion Models.

Universitat Politècnica De Catalunya - FIB, Barcelona

Bachelor Degree in Computational Science

September 2014 - October 2021

Thesis on new Kernels for Support Vector Machines. Link to thesis. Paper publication pending.

Work History

Barcelona Supercomputing Center, Barcelona

Junior Researcher

October 2022 - October 2024

Developed and optimized neural networks, GANs, and diffusion models for high-performance computing (HPC) environments. Contributed to the European SECURED project, working closely with doctors from Semmelweis University to generate mammogram images while addressing critical security and privacy concerns.

Freelance, Barcelona

Programming Tutor

July 2018 - Present

Developed and delivered coursework in Algorithmics, ML, and various programming paradigms, managing over 50 students.

Federació Catalana d'Esgrima, Barcelona

Software Programmer

December 2019 - April 2020

Created Skore, a NodeJs application for fencing match scoring.

Accenture, Barcelona

Technology Consulting Analyst

August 2018 - October 2018

Liaison between ML teams in Barcelona and Madrid, leading OCR projects.

Accenture, Barcelona

Regular Contractor

April 2018 - August 2018

Developed ML documentation and data structures.

Facultat d'Informàtica de Barcelona

Programming Mentor

October 2017 - February 2018

Provided introductory programming teaching at Universitat Politècnica de Catalunya.

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Languages

English: C1 Cambridge Certificate

Catalan: Native Spanish: Native

Certifications

AWS Academy Cloud Fundations

March 2023