

## 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.

---

omarlopezrubio@gmail.com  
Consell de Cent 203, 08011, Barcelona  
(+34) 682 647 769  
norhther.github.io/web

# Omar López Rubio

---

## Languages

**English:** C1 Cambridge Certificate

**Catalan:** Native

**Spanish:** Native

---

## Certifications

**AWS Academy Cloud Fundations**

March 2023