Marçal Herraiz Bayó

Physics and Mathematics student at the University of Barcelona, currently in the third year of study. I am highly interested in...

EDUCATION

Present Sep 2020 Bachelor's Degree in **Physics** + Bachelor's Degree in **Mathematics** University of Barcelona, UB

Jun 2020 Sep 2018 ${\bf Technological} \ {\bf Baccalaure ate}$

Mireia Centre d'Estudis
- 1st-ranked student of the class.

- GPA: 4.0/4.0

EXPERIENCE

Summer Research Intern

Sep 2023 Jul 2023 Mathematics Research Center, CRM

- Something cool I guess.
- Under the supervision of Núria Fagella and Xavier Jarque...

Crazy about Physics **Programme**

Catalunya La Pedrera Foundation

Oct 2019 Jan 2019

- Course aimed at first year A-Level students, with special talent and interest in physics, as an introduction to physics research.
- Worked on the LHC's ATLAS detector, accelerator beam physics, observational cosmology, and quantum computing, among others.

Additional Courses

CS50's Introduction to Computer Science, HarvardX

 $\begin{array}{c} Present \\ Mar \ 2023 \end{array}$

C, Algorithms, Memory, Data Structures, Python, SQL, Flask

- Learning by practicing.
- Certificate of completion

Python for Data Science and Machine Learning, Udemy

NumPy, Pandas, Matplotlib, Plotly, Seaborn, SciKit-Learn, TensorFlow

Jul 2023 Apr 2023

- Implemented various machine learning algorithms, including k-means clustering, linear and logistic regression, random forest and decision trees, support vector machines, and neural networks.
- Certificate of completion ☐

Machine Learning with Python, Coursera

Regression, Evaluation Metrics, KNN, Decision Trees, SVM, k-means

Jan 2023

- Learned the fundamentals of machine learning and studied different algorithms, such as linear and logistic regression, support vector machines, k-nearest neighbors, and decision trees.
- Certificate of completion □

${\bf 100~Days~of~Code:~The~Complete~Phyton~Pro~Bootcamp}, {\bf Udemy}$

Data Science, Automation, Game and Web Development, GUI Creation

Dec 2022 Jun 2022

- Developed proficiency in Python programming language through building 100 unique projects over 100 days, including automation scripts, web and app development, data science and machine learning models.
- Certificate of completion ☐

AWARDS AND ACHIEVEMENTS

Present Sep 2020	University of Barcelona	800 €	
	- Awarded to students with outstanding academic performance during university.		
Sep 2021 Sep 2020	Generalitat de Catalunya	1,700 €	
	- Awarded to those students with an excellent academic performance during		
	baccalaureate.		

LANGUAGES CODING SKILLS

Spanish	Native Speaker	Machine Learning	Data Visualization	Seaborn
$\mathbf{Catalan}$	Native Speaker	Python	Scikit-learn	NumPy
English	Advanced C1 Level	HTML	LaTeX	Pandas
German	Elementary Level	CSS	C	

VOLUNTEERING AND ACTIVITIES

- Science Fellows: initiative of the Catalunya la Pedrera Foundation to develop science communication activities such as expositions in museums and talks in high schools.
- **Problem Solving**: via books and online resources, solving problems is an activity that I perform, enjoy, and continue to learn on a daily basis.