

EDUCATION

I am enrolled in the dual degree programme in Mathematics and Physics, which admits 20 students annually and allows them to pursue both bachelor's degrees concurrently.		
<div><div>(Expected)</div><div>June 2025</div><div>Sept. 2020</div></div>	<div><div>University of Barcelona</div><div>Bachelor of Science in Mathematics</div><div><div>• Bachelor's thesis (in progress): Yang-Mills Equations and Gauge Theories.</div><div>• Supervisor: Prof. Dr. Ignasi Mundet.</div></div></div>	<div>GPA: 9.0/10</div>
<div><div>(Expected)</div><div>June 2025</div><div>Sept. 2020</div></div>	<div><div>University of Barcelona</div><div>Bachelor of Science in Physics</div><div><div>• Bachelor's thesis (in progress): How Classical Shadows Improve Quantum Learning.</div><div>• Supervisors: Prof. Dr. Bruno Julià, Dr. Artur Garcia.</div></div></div>	<div>GPA: 8.6/10</div>
<div><div>June 2020</div><div>Sept. 2018</div></div>	<div><div>Mireia Centre of Studies</div><div>Technological Baccalaureate</div><div><div>• 1st-ranked student of the class.</div></div></div>	<div>GPA: 10/10</div>

RESEARCH EXPERIENCE

<div><div>Present</div><div>Dec. 2024</div></div>	<div><div>Barcelona Supercomputing Centre – BSC</div><div>Visiting Student</div><div><div>• Pursuing my Physics Bachelor's thesis on Quantum Computing, focusing on using classical shadows to improve quantum learning.</div><div>• Supervisors: Prof. Dr. Bruno Julià, Dr. Artur Garcia.</div></div></div>
<div><div>Present</div><div>Oct. 2024</div></div>	<div><div>Centre for Mathematical Research – CRM</div><div>Undergraduate Researcher</div><div><div>• Pursuing my Mathematics Bachelor's thesis on differential geometry and gauge theories, supported by a Collaboration Scholarship.</div><div>• Supervisor: Prof. Dr. Ignasi Mundet.</div></div></div>
<div><div>Feb. 2025</div><div>July 2024</div></div>	<div><div>Institute for Research in Biomedicine – IRB</div><div>Research Intern</div><div><div>• Examined DNA flexibility under damage using a coarse-grained model.</div><div>• Optimised the model to account for DNA sequential damage.</div><div>• Devised and implemented new methods to calculate DNA geometric properties.</div><div>• Supervisor: Prof. Dr. Modesto Orozco.</div></div></div>
<div><div>Aug. 2023</div><div>June 2023</div></div>	<div><div>Centre for Mathematical Research – CRM</div><div>Research Intern</div><div><div>• Studied transcendental dynamics within the complex exponential family.</div><div>• Interpreted the results of Robert Devaney and Michal Krych for a specific parameter value, providing a full description of the dynamics in this set.</div><div>• Supervisors: Prof. Dr. Núria Fagella, Prof. Dr. Xavier Jarque.</div></div></div>

HONOURS AND AWARDS

<div><div>June 2025</div><div>Nov. 2024</div></div>	<div><div>Collaboration Scholarship</div><div><div>• Issued by the Spanish Ministry of Education, this scholarship is aimed at university students to conduct research in university departments.</div></div></div>	<div>2,000 €</div>
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June 2025 Oct. 2024	CRM Internship Programme Award (declined) 500 € <ul style="list-style-type: none"> Awarded to bachelor students who want to do their Bachelor's thesis advised by a researcher affiliated with the CRM.
Sept. 2024 July 2024	Maths4Life Awardee 1,200 € <ul style="list-style-type: none"> Awarded one of the five grants from IRB Barcelona's Maths4Life Programme to conduct research at the intersection of mathematics and biomedicine.
<i>Present</i> Sept. 2021	Excellent Performance 1,800 € <ul style="list-style-type: none"> Recipient of the University of Barcelona's honour for exceptional academic performance throughout my university studies.
Sept. 2021 Sept. 2020	Honours in Baccalaureate 1,700 € <ul style="list-style-type: none"> Awarded to students with an excellent academic record during their baccalaureate. Full coverage of tuition fees for the first year of university.
Oct. 2019 Jan. 2019	Mad for Science Programme <ul style="list-style-type: none"> Catalunya La Pedrera Foundation developed the Mad for Science Programme to open the doors of the leading research institutes to exceptional High School students. I participated in the Physics course.

INVITED TALKS

Sept. 2024	Extraordinary BioMed Seminar – Maths4Life 2024 <ul style="list-style-type: none"> In this seminar organised by IRB, I presented my research work undertaken as a summer intern.
July 2023	Barcelona Introduction to Mathematical Research – BIMR 2024 <ul style="list-style-type: none"> Presented the results of my summer internship at CRM to an expert audience.

LANGUAGES

Spanish Native Speaker
Catalan Native Speaker
English Advanced Level C1

CODING SKILLS

Languages: Python, C, Mathematica, LaTeX, Bash, SageMath.
Libraries: Pandas, SciPy, NumPy, Scikit-learn, Seaborn.
Other: Experience with Unix/Linux and computational modelling.

ADDITIONAL COURSES

- **Python for Data Science and Machine Learning** – Udemy [↗](#)
- **Machine Learning with Python** – Coursera [↗](#)
- **100 Days of Code: The Complete Python Pro Bootcamp** – Udemy [↗](#)

ADDITIONAL INFORMATION

- I am part of **Science Fellows**, an initiative of the Catalunya la Pedrera Foundation to develop STEM outreach activities such as museum exhibitions and talks in high schools.
- **Private tutor** for students in high school and university (Mathematics, Physics, Chemistry, Computer Science, Statistics, Engineering).