

# Lluc Santamaria Riba

📍 Lausanne, CH    ✉ lluc.santa@gmail.com    ☎ +34 639 41 25 89    🔗 [linktr.ee/lluc\\_santamaria](https://linktr.ee/lluc_santamaria)

## Profile

Computer Science student at UPC (ranked 1st of 400, GPA 9.25/10), currently on exchange at EPFL. I apply my research in compiler engineering and HPC to build robust systems that are secure, efficient, and robust. I am dedicated to democratizing AI and strengthening the open-source ecosystem.

## Experience

- |   |  |
|---|--|
| <b>Scala Center</b> , Research Assistant <ul style="list-style-type: none"> <li>Designed divergence check algorithm for Match Types in Scala 3 compiler</li> <li>Supervised by Martin Odersky (Scala creator and javac author) and Matthieu Bovel</li> <li>Prevented compiler crashes by replacing recursion limits with termination proofs</li> </ul>  | Lausanne, CH<br>Sep 2025 – Present               |
| <b>Investment Society Lausanne</b> , Student Association - IT Market Analyst <ul style="list-style-type: none"> <li>Collaborated in five-person team to identify undervalued tech stocks.</li> <li>Successfully defended Melexis and Magyar pitches before 50+ members</li> </ul>   | Lausanne, CH<br>Sep 2025 – Jan 2026              |
| <b>Barcelona Supercomputing Center</b> , Summer Internship - LLM Researcher <ul style="list-style-type: none"> <li>Fine-tuned and evaluated a CodeLlama-based model on the MareNostrum 5 supercomputer to generate PyCOMPSs-parallelized code</li> <li>Updated and expanded the repository of PyCOMPSs examples, making it a solid foundation for training</li> <li>Designed and implemented a dataset generation pipeline, fully automated</li> <li>Gained expertise in distributed computing, cluster execution, and reproducibility</li> </ul> | Barcelona, ES<br>Jul 2025 – Aug 2025             |
| <b>Eixos Creativa</b> , Creative Technology Instructor <ul style="list-style-type: none"> <li>Taught extracurricular creative technology program to 10–12-year-olds</li> <li>Led activities that promoted collaboration, creativity, and STEM engagement</li> </ul>   | Barcelona, ES<br>Apr 2025 – Jun 2025             |
| <b>ALBA Synchrotron</b> , Software Engineer Intern <ul style="list-style-type: none"> <li>Developed web applications using Django, RESTful API, and AngularJS</li> <li>Worked in Agile Scrum methodology and used CI/CD technologies</li> <li>Helped to automate and speed up enterprise internal processes</li> </ul>  | Cerdanyola del Vallès, ES<br>Oct 2024 – Apr 2025 |
| <b>Barcelona School of Informatics (UPC)</b> , Lecturer in Mathematics (Scholarship) <ul style="list-style-type: none"> <li>Delivered lectures on discrete mathematics to first-year university students.</li> <li>Served as the coordinator for some lecturers, ensuring alignment and consistency</li> </ul>  | Barcelona, ES<br>Feb 2024 – Jun 2024             |

## Education

- |   |                                      |
|---|--------------------------------------|
| <b>EX</b> <b>École Polytechnique Fédérale de Lausanne (EPFL)</b> , Exchange Program <ul style="list-style-type: none"> <li>Erasmus exchange program during 5<sup>th</sup> semester</li> <li>Awarded three scholarships for the exchange</li> </ul>              | Lausanne, CH<br>Sept 2025 – Present  |
| <b>BE</b> <b>Universitat Politècnica de Catalunya (UPC)</b> , Computer Engineering <ul style="list-style-type: none"> <li>Top 1 student of my cohort with a GPA 9.25/10</li> <li>Honors in 16 courses</li> <li>Elected as delegate for three courses</li> </ul> | Barcelona, ES<br>Sept 2022 – Present |

- HS Institut-Escola Frederic Mistral**, Technological High School
- Achieved honors in the university entrance exams (grade 12.7 out of 14)
  - Completed high school with distinction (grade 8.72 out of 10)

Barcelona, ES  
Sept 2020 – June 2022

## Awards and Scholarships

---

**Universitat Politècnica de Catalunya (UPC)**, Highest GPA Award

- Ranked #1 of nearly 400 students in the first two years of the degree program

**Heyning-Roelli Foundation**, Exchange Scholarship

- Competitive merit-based scholarship supporting exchange studies at EPFL.

**Fundación Banco Santander**, Exchange Scholarship

- Merit-based scholarship awarded to top Spanish university students for international exchange at EPFL

**SUI Hackathon**, Winner

- Winner at the SUI Foundation Hackathon 2025 (Lausanne) for the Healix blockchain project

**Minister of Research and Universities**, Honor Letter

- National recognition for outstanding results in the university entrance exams

## Projects

---

**Healix**, SUI Hackathon Winner Project

[tinyurl.com/SUIHacking](https://tinyurl.com/SUIHacking) 

- Decentralized platform for sharing emotions securely on the Sui blockchain
- On-chain encryption using SEAL and Move smart contracts.

**Snap2Shop**, HackUPC, Inditex Challenge

[tinyurl.com/HackUPC](https://tinyurl.com/HackUPC) 

- Computer Vision solution for visual search of fashion clothes

## Volunteering

---

**Anegx**, Viu la natura al Parc Natural de la Garrotxa

Olot, ES

- Forest conservation, community work, and awareness activities in the volcanic area

Jul 2021

**Fundesplai**, Recuperem el patrimoni de la Vall de Sau

Vilanova de Sau, ES

- Forest restoration, wildlife monitoring, maintenance, and signposting of hiking trails

Jul 2020

**El Teix**, Muntanyes del Terraprim

Viladamat, ES

- Restoring fire-damaged forests and connecting cultural heritage sites

Jul 2019

## Languages

---

- **Catalan and Spanish:** Native
- **English:** Proficient. Cambridge English C1 Advanced, Score: 183

## Technologies

---

- **Programming:** Python, C++, C, Java, Scala, Haskell, SQL, JavaScript, HTML, CSS, Bash
- **Frameworks & Libraries:** Django, React, AngularJS, Flutter, PyTorch, Numpy, Scikit-learn
- **Parallel/Distributed:** OpenMP, COMPSs, AsyncIO.