# Lluc Santamaria Riba

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## Profile \_\_\_\_\_

Computer Science student at UPC (ranked 1st of 400, GPA 9.25/10), currently on exchange at EPFL. Interested in machine learning, algorithms, and financial markets. Proven strengths in leadership, problem-solving and organization.

# Experience \_

### Scala Center, Research Intern

- Implement divergence checking for match types in the Scala 3 compiler
- Work on type-level algorithms guided by Martin Odersky and Matthieu Bovel

#### Investment Society Lausanne, Student Association - IT Market Analyst

- Conduct market research on IT companies to identify investment opportunities.
- Prepare and present short investment pitches to support fund decisions.

### Barcelona Supercomputing Center, Summer Internship - LLM Researcher

- Fine-tuned and evaluated a CodeLlama-based model on the MareNostrum 5 supercomputer to generate PyCOMPSs-parallelized code
- Updated and expanded the repository of PyCOMPSs examples, making it a solid foundation for training
- Designed and implemented a dataset generation pipeline, fully automated
- Gained expertise in distributed computing, cluster execution, and reproducibility

### Eixos Creativa, Creative Technology Instructor

- Taught extracurricular creative technology program to 10–12-year-olds
- Led activities that promoted collaboration, creativity, and STEM engagement

### **ALBA Synchrotron**, Software Engineer Intern

- Developed web applications using Django, RESTful API, and AngularJS
- Worked in Agile Scrum methodology and used CI/CD technologies
- Helped to automate and speed up enterprise internal processes

### **Barcelona School of Informatics (UPC)**, Lecturer in Mathematics (Scholarship)

- Delivered lectures on discrete mathematics to first-year university students.
- Served as the coordinator for some lecturers, ensuring alignment and consistency

# Education \_\_\_\_\_

# **École Polytechnique Fédérale de Lausanne (EPFL)**, Exchange Program

- Erasmus exchange program during 5<sup>th</sup> semester
- Awarded three scholarships for the exchange

### BE Universitat Politècnica de Catanunya (UPC), Computer Engineering

- Top 1 student of my cohort with a GPA 9.25/10
- Honors in 16 courses
- Elected as delegate for three courses

### **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)

Lausanne, CH Sep 2025 – Present

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Barcelona, ES Jul 2025 – Aug 2025

Barcelona, ES Apr 2025 – Jun 2025

Cerdanyola del Vallès, ES Oct 2024 – Apr 2025

Barcelona, ES

Feb 2024 – Jun 2024

Lausanne, CH

Sept 2025 – Present

Barcelona, ES Sept 2022 – Present

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 2

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

Snap2Shop, HackUPC Hackathon, Inditex Challenge

tinyurl.com/HackUPC 🗹

- Computer Vision solution for visual search of fashion clothes
- · Mobile app built with Flutter, FastAPI and Inditex API

# 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

Viladamat, ES

• Restoring fire-damaged forests and connecting cultural heritage sites

Jul 2019

# Languages \_\_\_\_\_

• Catalan and Spanish: Native

El Teix, Muntanyes del Terraprim

• English: Proficient. Cambridge English C1 Advanced, Score: 183

# Technologies \_\_\_\_\_

- Programming: Python, C++, Java, SQL, JavaScript, HTML, CSS, Bash
- Frameworks & Libraries: Django, React, AngularJS, Flutter, PyTorch
- Parallel/Distributed: OpenMP, COMPSs, AsynciO.