

ZEPHYR SERRET

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OBJECTIVE

Software Engineer with ~ 2 years of experience in Full Stack Development, seeking full-time Software Engineering roles.

SKILLS

Programming Languages	C++, C, Rust, Python, Java, SQL, Javascript, LaTeX.
Spoken Languages	French (native), English (C2), Spanish (C2).
Soft Skills	Leadership, Communication, Autonomous-Learning, Teamwork.
Technical Skills	Embedded Systems, Data Structures & Algorithms, (Non-)Relational Databases, Continuous Integration, Cloud Services, Scalability, RESTful APIs, Testing.

EDUCATION

Bachelor of Computer Science with Major in Computing | 240 ECTS, *Universitat Politècnica de Catalunya* (2024)

Relevant Coursework: Quantum Computing/Cryptography ◇ Graphics ◇ Parallelism ◇ Artificial Intelligence

Bachelor of Computer Science | Erasmus, *University of Edinburgh* (2022)

Relevant Coursework: Advanced Robotics ◇ Machine Learning & Pattern Recognition

EXPERIENCE

Junior FullStack developer (Jan 2023 - Jul 2023)
SensingTex *Barcelona, Spain*

Utilising textile electronics to create medical solutions, I:

- Worked in a compact team using **Agile** methodologies to maintain and develop new features across the stack, mainly focusing on **microcontroller firmware**, **cloud services** and **web interfaces**.
- To meet the deadline for a new product launch, I developed and integrated new features and algorithms, resulting in a successful release.
- Led the development of the microcontroller firmware re-work (**C++11**), unifying the codebase across products and improving maintainability.

Software developer - internship (Jan 2022 - Aug 2022)
Hewlett Packard & UPC *Barcelona, Spain*

Worked on slicing software (**C++17**) for SLS 3D printers, implementing support for the new file format ".3mf".

- I implemented **triangle mesh optimization algorithms**, reducing the slicing time for some meshes by 40%.
- I created **unit tests** and improved the **benchmark system**.

PROJECTS & ACTIVITIES

Orienting Biochemical Reactions. Worked on hypergraphs, specifically on the novel NP-hard problem of orienting hyper-edges minimizing external vertices, in the context of metabolic pathways. I created an AMPL model that obtains an optimized solution. This work was presented as my final thesis for my Bachelor and netted me a 9.1/10. All code and presentation material can be found [here!](#).

Hackathons. I participated in the 2023 HackUPC and won the first prize presented by Optiver. I also placed 2nd in the 2022 AdaHack in Edinburgh.

MISCELLANEOUS ACHIEVEMENTS

- Led study group for 10+ students in High School for 2 years and for 4+ students in University for 2 years.
- Created and moderated the main Discord server for my class in University.
- I skipped a grade in High School by passing the CE2D exam with the highest score in Belgium.