

Sergi Soler Arrufat

Computer Engineering and Mathematics student

 fraret.eu  fraret  fraret  fraretblauet@gmail.com

EXPERIENCE

MASSACHUSETTS INSTITUTE OF TECHNOLOGY | VISITING STUDENT

September 2023 - currently | Cambridge, MA, USA

- Doing my Bachelor's thesis in Computer Architecture for my degree at UPC as a researcher/visiting student

SEMIDYNAMICS | HARDWARE ENGINEERING INTERN

June - September 2022 | Barcelona, Spain

- Designed RTL and later verified an implementation of the RISC-V cryptography extension.

ZHILABS (A SAMSUNG COMPANY) | SOFTWARE ENGINEERING INTERN

June - August 2021 | Barcelona, Spain

HP | SOFTWARE INTERN

July - September 2020 | Remote

EDUCATION

Currently studying **Bachelor's Degree in Computer Engineering** and **Bachelor's degree in Mathematics** at CFIS (UPC Barcelonatech) with a full tuition scholarship.

September 2019 — Present

IB Diploma at Institut Jaume Vicens Vives
Subjects: Mathematics HL, Physics HL, Chemistry SL, Catalan HL, Philosophy SL, English SL. Overall grade 42/45

September 2017 — May 2019

PROJECTS

EDGE++ | JAVASCRIPT, PHP, C++

Hackupc 2021, 3rd prize

- Webpage that can use an C++ file (plus html for the layout) to generate an interactive webpage run by the host browser
- Uses WebAssembly to run the C++ in the browser, using custom-made Javascript to glue it all and PHP to automate the deployment process
- Presents to the end user as two file selection dialogs and a button that gives a link to the working page (that can be downloaded and rehosted without any special software)

FRIMCO | C++

2019

- Custom image compressor developed for my IB Extended Essay, titled "Study on the effects of pixel processing order when losslessly compressing a grayscale image"

COMPETITIONS AND AWARDS

2019	Bronze medal	IPho (International Physics Olympiad)	Tel-Aviv (Israel)
2019	Silver medal	OIE (Spanish Informatics Olympiad)	remote
2018 & 2019	Bronze medal	OME (Spanish Mathematical Olympiad)	Jaén, Oursense (Spain)
2019	Finalists	HP Codewars	Houston (USA)

SKILLS

PROGRAMMING AND HARDWARE DESIGN

Experienced:

C/C++ • Python • Java • SQL
ANTLR • MongoDB • SystemVerilog

Familiar:

JavaScript • PHP • Assembly (x86, MIPS, RISC-V) • VHDL • UVM • Bluespec SV

TOOLS/PLATFORMS

git • SVN • Linux • Nginx • Jekyll

LANGUAGES

Catalan

Native

Spanish

Native

English

CEFR C1 (First Certificate grade A)

OTHER

B (car) driving licence
Amateur theatre actor