JUAN FERNÁNDEZ ESTEBAN

+34692214237 • juanfernandezesteban@gmail.com • Sant Joan Despí, Barcelona, Spain •
Open to Remote • Open to Relocate • LinkedIn • Website • GitHub

Software Engineer

Self-taugth software developer with a strong scientific background and numerous personal projects, including several videogames and physics simulations. Currently working in an article with a gravitational lensing group. Fast learner and willing to learn.

Core Competencies

Programming Languages   C, C#, C++, Python, Java, Lua
Web Technologies   HyperText Markup Language (HTML), Cascading Style Sheets (CSS), JavaScript (Programming Language), Three.js
Shading   HLSL, GLSL, ShaderLab
Software Development   Software Engineering, Debugging, Object Oriented Programming
Data Analysis and Engineering   Data Analysis, Data Engineering, Conda
Soft Skills   Teamwork, Hardwork, Creative Problem Solving, Fast Learning
Interests   Software Engineering, Software Development, Data Analysis, Data Engineering, Data Architechture, Technological Consultancy, Startegy Consultancy, Investment Banking, Game Programming, Game Technical Art, Game VFX Art

Professional Experience

University of Barcelona, Spain   Feb 2024 - Present
Research Student, Barcelona
- I programmed a complete python model of the Navarro-Frenk-White (NFW) lens for gravitational lensing of gravitational waves (NFW is a density profile for dark matter halos).
- I am currently working on studying similar but more complex models for a complete article, and to prepare a bigger M.Sc. thesis.

Self employed   Oct 2023 - Present
Independent Game Developer
- Utilized Unity for coding, debugging and optimizing game performance with C#.
- Used OOP's design patterns and developed an online networking system.
- Created original shaders with ShaderLab and HLSL.
- Implemented game design concepts such as mechanics, level design, and player feedback for engaging gameplay.
- Published 3 short games on itch.io and working on a long term one.

Loreto Abat Oliba, Spain   Jan 2019 – Feb 2019
Substitute Teacher, Barcelona
- Lectures to 3 different groups.

Education

University of Barcelona, Barcelona, Spain, M.Sc. in Astrophysics, Particle Physics and Cosmology, Sep 2024
- M.Sc. thesis on dark matter gravitational lensing of gravitational waves, as an expansion on my previous work.

University of Barcelona, Barcelona, Spain, B.Sc. in Physics and Mathematics, (GPA: 8.4/10), Sep 2018 - Jan 2024
- 8 subjects passed with Honors, including the Physics B.Sc. thesis: "Probing dark matter halos by gravitational waves"

Loreto Abat Oliba, Barcelona, Spain, Bachillerato in Science, (GPA: 13.426/14), Sep 2016 - Jun 2018
- 5 months exchange in Ireland.
- Graduate with Honors

Projects

Web and portfolio, [Link](#)
- Complete NFW dark matter lens model. (WIP article)
- Neon Pecker and Hamptem the Hamster on itch.io
- The Repentance of Prometheus on itch.io
- Minecraft modding

Awards

Silver Medal, OEF   Apr 2017

Certifications

C1 Advanced, Cambridge

Dual Diploma, Academica

B2 Driver's Licence