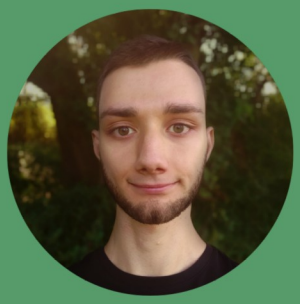

Sergio Abreu García

Software engineer

sergioabreu.me | contact@sergioabreu.me

ABOUT ME

I've been building stuff since I was little, driven by my curiosity about how things work. Since I also love video games, I decided to study Game Development. That gave me a great programming basis, but I also learned about various technical topics by myself: web development, artificial intelligence, programming languages, operating systems, etc. For the past few years, I've been interested in systems programming, focusing on Rust because of its emphasis on safety and speed.

I care about building reliable, efficient, sustainable software that improves the world.

EXPERIENCE

[12/2022 – Present]
Programmer at Ao Norte

- As a team of five, we are building game prototypes and searching for funding.
- I am the only programmer, so I had to step up my abilities to be able to build everything by myself.
- I learned to lead the technical side of a game by working with designers, artists and managers.
- *Technologies: Godot, Unity, and C#.*

[11/2022 – Present]
Software engineer at Ozona Tech

- I'm currently working on Overa Activity, an analytics tool written in Rust with strict performance and security requirements.
- I improved my programming skills, especially in Rust and low-level coding.
- I learned how big projects work and how to deal with scalability issues.
- I learned to work in a team of multiple engineers using agile development.
- *Technologies: Rust, Windows development, multithreading, message queues (RabbitMQ), Azure DevOps, CI/CD, Docker, networking (QUIC, TCP), and systems architecture.*

[08/2021 – 11/2021]

Augmented reality project for the automotive industry

- As a team of three, we developed a Unity prototype to train factory workers using hand motion tracking and augmented reality.
- I learned to analyse motion-tracking data.
- I learned to synchronize multiple devices through a local network.
- *Technologies: Unity, C#, Mirror (Unity library), Manus (hand motion-tracking), and augmented reality.*

FORMAL EDUCATION

[2016 – 2021]

Bachelor's degree in Video-game Development

- *Complutense University of Madrid (Faculty of Computer Science)*
- I learned foundational computer science, maths, programming fundamentals, C++, C#, Unity, Python, JS, and game engines.

[2020/2021]

Deep learning specialization

- *Coursera (certificate link)*
- I took this specialization because I wanted to learn how machine learning works at a deeper level.

PERSONAL PROJECTS

2022 **Learned Rust**

- I learned Rust through the official book because I was interested in building software that is both reliable and efficient.
- I made a few simple projects to familiarise myself with the language.

2021 **Physics-based animations through reinforcement learning - GitHub**

- Bachelor's final project Daniel Álvarez Castro and I made along.
- We researched the physics behind complex rigid-body systems in Unity.
- We developed a deep neural network (RL) to achieve natural physics-based movements based on pre-recorded animations.

2020 **Active Ragdolls, physics-based animations in Unity - GitHub, YouTube**

- I built a physics-based animation system in Unity.
- I made a YouTube video explaining how active ragdolls work.

Fluent in **English**, native in **Spanish** and **Galician**.