Júlia Serra Trujillo

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Portfolio | **LinkedIn** | **Github** | **Itchio**

C++ / C# PROGRAMMER

EDUCATION

Master's Degree on Sound and Music Computing
Universitat Pompeu Fabra (UPF)
2025 – Now

Bachelor Degree on Video Game Design and Development (taught in English)
Image Processing and Multimedia Technology Centre (CITM)
Universitat Politècnica de Catalunya (UPC)
2021 – 2025 (Average grade: 8.05)

Batxillerat Tecnològic
Institut de Premià de Mar
2019 – 2021 (Average grade: 8.2)

LANGUAGES

- Catalan: Native
- Spanish: Native
- English: Fluent. C1 Advanced
- French: Basic

EXPERIENCE

- **Internship as Unity Developer**
  DigitalTwin Technology GmbH
  Barcelona, Spain (September 2024 - August 2025)
  Developed an already established Unity project by working with cross-disciplinary teams to design and enhance interactive UI/UX elements using Unity Editor scripting, which increased user engagement and retention. Implemented solutions in Unity using C# programming, WebGL optimization techniques, and refined 3D model interactions, reduced load times and smoother real-time performance within multiple platforms and devices. Designed and integrated an automated Unity build packaging tool using C# and Unity Editor scripting, integrated with Inno Setup. Implemented a dynamic

language-switching system by programmatically swapping the usage of Unity's ScriptableObjects at runtime, reducing manual configuration effort and ensuring effective content updates between different languages based on the user's needs

- **Programming Teacher**
  Codelearn
  Mataró, Spain (July 2024 - September 2024)
  Unity (2D and 3D) teacher for summer camps
  Python, HTML, Javascript, CSS, C++, Linux teacher

- **Code Lead**
  Shadow Wizard Games
  Barcelona, Spain (February 2024 - June 2024)
  Worked in the development of the indie video game "Alien: Nemesis" as Code Lead and Audio Programmer while developing our own engine "TheOneEngine" and the game itself. Led a team in successfully delivering a complex project on time and within allocated resources, fostering effective cross-department communication and using Agile methodologies.

- **Programming Teacher**
  Codelearn
  Mataró, Spain (June 2023 - January 2024)
  Unity (2D) and Blender teacher for summer camps.
  Python, HTML, Javascript, CSS, C++, Linux teacher

- **Digital Edition assistant**
  Editorial Casals
  Barcelona, Spain (June 2022 - September 2022)
  Digitalizing activities for school books and editing video interactives

- **Digital Edition assistant**
  Editorial Casals
  Barcelona, Spain (July 2021 - September 2021)
  Digitalizing activities for school books

SKILLS

Programming

- **Programming languages**: C++ (4 years), C# (4 years), C (4 years), Python (3 years), HTML (3 years), JavaScript (3 years), CSS (3 years), Dart (2 year), SQL (2 years), Intel x86 Assembly (<1 year), XML (<1 year), Linux (<1 year)
- **Libraries**: SDL2, Box2D, Optick, OpenGL, GLEW

- **Physics/Math Programming**: Collision detection and response, 3D rotation of objects, creation of a physics simulation, camera views, integrating graphical objects into a physical system
- **Graphics programming**: Bitmap manipulation, Texturing, Parallax
- **Audio Software**: Wwise, FMOD
- **Development tools**: Visual Studio 2019 and Visual Studio 2022, Visual Studio Code

Design

- **Level Design Tools**: Tiled
- **3D Modeling tools**: AutoDesk 3ds Max, ZBrush, Maya, Blender
- **Design Tools**: Adobe Photoshop, Adobe Illustrator, Piskel, Aseprite, Adobe Substance 3D Painter

Game Engines: Unity, Unreal, Godot

Video and Audio editing Tools

- **Video Editing Tools:** Adobe Premiere, iMovie
- **Audio Tools**: GarageBand, Audacity

Organizing Tools: Trello, Scrum, HacknPlan, Notion, Slack

Microsoft Office: Microsoft Word, Microsoft Excel, Microsoft PowerPoint

FEATURED PROJECT

Alien: Nemesis (February 2024 - June 2024) (team of 23) (lead of 11)
Language: C++, C#, JSON
Role: Code Lead, Audio Engineer, Programmer, Game Tester
Worked as Code Lead, lead of a group of 11 programmers, Audio Engineer and programmer.
Developed by Shadow Wizard Games Studios, a team of 23 students at CITM-UPC, developed on our own C++ game engine: TheOneEngine.
Programmed in C++ regarding everything related to the engine systems, C# for the scripts and JSON to save scenes, components and all the information related to the game itself. The game is also supported by Wwise for the audio for the game.
https://shadow-wizard-games.github.io/Alien-Nemesis-Website/