



Víctor Ubieto

Computer Science
Engineer

Contact



+34 615278646



victoremilio.ubieto@upf.edu
victorubieto01@gmail.com



Barcelona, Spain



/victorubieto



in/victorubieto



google-scholar



About Me

I am a cheerful person with a passion for new technologies. My engineering background has taught me to adapt quickly to new challenges and become a fast learner. I am a calm person, which makes me take better decisions and think carefully about the consequences of my actions. I work well with groups, and enjoy leading teams to enhance both individual and collective performance.

Main PLs

- **Javascript:** Most of the projects in the research group are web-based.
- **C++:** The main language used to develop CG frameworks.
- **HLSL:** Along with C++, it is necessary to have a CG project.
- **Python/Matlab:** Useful for machine learning or computer vision tasks.



Education



Bachelor of Audiovisual Systems Engineering

Universitat Pompeu Fabra

2016 - 2020

At the age of 18, I moved to Barcelona to pursue an engineering degree. During this time, I built a strong foundation in scientific knowledge and also experienced significant personal growth, learning how to navigate life independently.



Master in Computer Vision

Universitat Autònoma de Barcelona

2020 - 2022

I enrolled in the Master's program with the goal of deepening my expertise in the field and establishing connections with industry. During the program, I gained foundational knowledge in machine learning, which proved invaluable in my later work on European research projects within the research group.



Experience



Research Personnel Support

PRESENT, AdMiRe

2020

In the final year of my degree, I joined the Interactive Technologies Group at UPF. Being member of a research group allowed me to participate in several European Projects.



Associate Professor

Computer Graphics

2020 - 2022

This program serves as an introduction to computer graphics for students. Learning the process of rastering both in CPU and GPU.



Research Personnel Support

SignON

2020 - 2023

I took responsibility of the SignON European Project. Here I gained the experience of planning and managing projects involving other universities and companies. Apart from that, I developed my knowledges in computer animations and machine learning.



Associate Professor

Advanced Computer Graphics

2022 - Date

This program extends the previous course by deeping in PBR techniques using Ray Tracing and Volume Rendering approaches.



Associate Professor

Computer Animation

2022 - Date

I created this program with the knowledge obtained in European projects to teach students about the topic of Computer Animations.



Research Personnel Support

Emerald

2023 - 2025

In this European Project I built upon the deep learning tools developed in the SignON project. Improving the algorithms and models created.



Research Personnel Support

Bayesian Monte Carlo for Global Illumination

2025 - Date

In this European Project, I sharpened my skills in math and physics. I got to research, learn, and develop the insights of a physically-based ray tracing render pipeline. I also took the opportunity to develop my own framework from scratch and evaluate it with Mitsuba and pbrt-v4.



Publications

- I. Murtagh, V. U. Nogales, and J. Blat, “**Sign language machine translation and the sign language lexicon: A linguistically informed approach**”, in Proceedings of the 15th biennial conference of the Association for Machine Translation in the Americas (Volume 1: Research Track), 2022, pp. 240–251.
- A. Way, L. Leeson, and D. Shterionov, **Sign Language Machine Translation**. Springer, 2024.



Personal Projects

- **Node-Based Shader Editor for Volume Rendering in WebGL. [URL](#)**

The result of my final degree project. It is a web-based application that allows users to create shaders using visual nodes. The render result is volumetric, and supports medical data such as DICOMs.

- **Landmarks for Available Avatar Animations (L4AAA) Open Dataset. [URL](#)**

Publicly available database designed to assist developers in addressing the issue of limited datasets for 3D animation synthesis. The goal of this project is to create a readily accessible dataset that can be continually improved through automation. This work was presented with my final Master Thesis.

- **EasyVDB. [URL](#)**

Light-weight library to import/export .vdb files with easy integration in other projects using submodules via cmake. I learned about large volumetric structures, and data buffer management.