



# Olivier Pachoud

Junior Graphics and Games Programmer

## CONTACT

### Email:

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### Portfolio:

<https://chocolive24.github.io/>

### Linkedin:

<linkedin.com/in/olivier-pachoud>

## EDUCATION

### Bachelor of Science

in Games Programming

SAE-Institute Geneva

Graduated: July 2025

### Swiss Federal Baccalaureate

Economics and Law +

Computer Science option

Yverdon Gymnasium

Graduated: July 2022

## SOFT SKILLS

- Empathic
- Rigorous
- Optimistic
- Teamwork
- Communication

## HOBBIES

- Playing video games
- Going to the cinema
- Travelling
- Swimming
- Hosting birthday parties for children at the local game library in my village.

## LANGUAGES

- French: Native
- English: Fluent-B2

## OBJECTIVE

Passionate about graphics programming, I seek to contribute to video game and interactive media projects while continuously improving my real-time rendering skills.

I aim to put my technical expertise to work within a team to create striking and immersive interactive visuals.

## TECHNICAL SKILLS

- ◆ **Languages:** C++, C, C#, Python, GLSL, HLSL
- ◆ **Graphics APIs:** DirectX 11 & 12, DXR, CUDA, OpenGL
- ◆ **Game Engines:** Unreal Engine 4 & 5, Unity
- ◆ **Tools:** Git, Perforce, Cmake, Vcpkg, Docker, Emscripten
- ◆ **Networking:** Photon Realtime, SFML Sockets

## EXPERIENCE

### SAE-INSTITUTE:

- ◆ **Ruby and The Lost Crystals: UE5 Team Game Project**  
Project Co-leader, Lead Game Programmer, Graphics Programmer & Tech Artist.  
Developed a custom cel-shading post-process material.  
Engineered special visual effects: planar reflections, outline shaders, particle systems, and dynamic visual feedbacks
- ◆ **DXR Raytracing Rendering of Dynamic and Implicit Fluid**  
Implemented raymarching in a custom intersection shader.  
Integrated Marching Cubes algorithm to generate a dynamic mesh for the DXR acceleration structure.
- ◆ **OpenGL 3D Scene in Deferred Shading and PBR**  
Programmed a 3D engine from scratch in C++/OpenGL  
Implemented deferred shading pipeline with PBR materials and dynamic lighting

### PERSONAL WORK:

- ◆ **Pathtracer in CUDA**  
Brute-force path tracer in CUDA supporting multiple media (dielectrics, density volumes), optimized with BVH.
- ◆ **Mini Minecraft clone in DirectX 11**  
Generated a mini minecraft world procedurally with perlin noise and added a player controller with collisions