

WANG XIHAO

Student at the University of Montpellier – Master IMAGINE

EXPERIENCE

Feb 2025
Jun 2025

VOLUMETRIC RENDERING AND CLOUD SIMULATIONE NUAGES

TER Project | University of Montpellier

Languages and technologies: C++, OpenGL, GLSL

- Designed a volumetric rendering engine in C++/OpenGL/GLSL for visualizing participating media (clouds, fog).
- Implemented ray marching, procedural deformation, and dynamic volumetric textures.
- Comparative study of several rendering approaches.

Feb 2025
May 2025

STAR ENGINE – 3D GAME ENGINE

Group Project (M1) | University of Montpellier

Languages and technologies: C++, OpenGL, GLSL, Assimp, ImGui, ECS architectur

- Developed a complete 3D game engine (editor, PBR, animation, physics).
- Integrated Physically-Based Rendering (metalness, roughness, AO, cubemap, IBL).

Mar 2025
May 2025

PHOTO MOSAIC WITH ADVANCED CRITERIA

- Generated photo mosaics (C++) using several matching methods: average color, histogram comparison, color distribution, and color blending (PSNR up to 21 dB).

Oct 2024
Jan 2025

RAY TRACING

- Implemented reflection, refraction, transparency, and metallic materials with roughness. Kd-Tree acceleration structure.

EDUCATION

Sep 2024
Present

MASTER'S DEGREE IN COMPUTER SCIENCE – IMAGINE TRACK

University of Montpellier | Montpellier

Specialization in image processing and analysis, computer graphics (OpenGL/GPU, real-time and offline rendering), and 3D vision and modeling.

Sep 2020
Jun 2024

BACHELOR'S DEGREE IN COMPUTER SCIENCE

University of Montpellier | Montpellier

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SUMMARY

Master's student in Computer Science IMAGINE track at the University of Montpellier, I am looking for a 6-month end-of-study internship in the field of game development, graphics programming, 3D rendering, or artificial intelligence applied to image processing and 2D/3D reconstruction. I wish to apply my skills in OpenGL, GLSL, C++, and interactive simulation within a technically demanding and creative environment.

SKILLS

- C++, OpenGL, GLSL
- JavaScript
- Python
- Godot / Unity
- Android Studio

LANGUAGES

- French – Professional
- English – Intermediate
- Chinois – Native