

Pierre Hubert-Brierre

Computer Graphics PhD Student

Publication

- 2025 **Accelerating Signed Distance Functions**, *Pacific Graphics*
P. Hubert-Brierre, E. Guérin, A. Peytavie, E. Galin

Certificates

- 2024 **ENS Certificate**, *Computer Science*, ENS (Lyon), Certificate of fundamental research
2023 **Master of Science ID3D**, *Computer Graphics*, Claude Bernard University (Lyon)
2022 **Cambridge Advanced**, *English Level C1*
2021 **Honour Degree**, *Mathematics*, Claude Bernard University (Lyon)
2021 **Honour Degree**, *Computer Science*, Claude Bernard University (Lyon)
2018 **Baccalaureate**, *S (SI) European with highest honour*, Jules Ferry High School (Cannes)

Teachings

- 2025 **OpenGL Introduction**, *Polytechnique (36h)*, Teaching Assistant
2024/2025 **Computer Vision**, *Polytechnique (12h+18h)*, Teaching Assistant

Curriculum

- 2024- PhD Student in Computer Science (Claude Bernard University/Polytechnique)
2023-2024 Ecole Normal Supérieur (Lyon), Computer Science Department
2022-2023 Claude Bernard University (Lyon), Computer Graphics
2020-2022 Ecole Normal Supérieur (Lyon), Computer Science Department
2018-2020 MPSI, MP* School St-Louis (Paris)

Internships

- 2024 **LIX**, *Polytechnique*, 5 months, with Marie-Paule CANI,
Implicit surfaces optimisation (Internship preparing my PhD topic).
2023 **LIRIS**, *Claude Bernard University*, 3 months, with Eric GALIN,
Implicit Surfaces Modeling (Internship preparing my PhD topic).
2023 **LIRIS**, *Claude Bernard University*, 5 months, with Jean-Claude IHEL,
Defensive sampling for Monte Carlo rendering (Two minor discoveries).
2022 **University of Edimburg**, *Edimbourg*, 3 months, with Kartic SUBR,
NLP for Computer Graphics (Automatic generation of 3D scenes and a user study).
2021 **INRIA**, *Bordeaux*, 6 weeks, with Pascal BARLA,
Thin layer modelisation (Software development for BRDF precomputation)

91400 Orsay – France

☎ +33 (0) 6 63 31 76 25 • ✉ pierre.hubert-brierre@ens-lyon.fr

<https://pierre-hb.github.io/>

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Personal projects (<https://github.com/Pierre-HB>)

- 2022 Procedural generation of city and road using C++
- 2022 Fractal tree with Implicit surfaces using C++
- 2022 Ray tracing algorithm to render displacement map using C++
- 2020 Greedy algorithm to solve the Travelling salesman problem with intensive optimisations using C++
- 2020 First ray tracing algorithm using JAVA
- 2020 3D engine using OpenGL with JAVA
- 2019 Improvement of my 3D engine using Python and Ocaml
- 2019 First 3D engine using Python
- 2018 2D game in JAVA using LWJGL

Languages

- French Mother tongue
- English C1 level (Cambridge Advanced)

Programming languages

- Python
- C / C++

Miscellaneous

Interests

- Video games
- Hiking
- Ballroom dance
- Roller

Qualities

- Versatile
- Autonomous