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 descoveries).

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)

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https://github.com/Pierre-HB

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
- Ballroom dance
- Hiking
- Roller

Qualities

- Versatile
- Autonomous

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