

Henri STEIN | henri-stein.com

👤 3D Software Engineer

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Seeking employment starting from August 2024.

EDUCATION

Master's degree in Images & 3D

2022 - 2024

In progress

University of Strasbourg, France

- Skills in 3D rendering: Monte Carlo path tracing, ray tracing volume rendering, modeling with Bézier surfaces, ...
- Procedural modeling and shader programming skills (Unreal Engine, C++ OpenGL/GLSL).
- Mesh processing skills: denoising, triangulation, subdivision, optimization, ...
- Master's thesis on procedural texture synthesis and blending (*tiling and blending* and *blend-maps*).
- Computer vision skills: machine learning (scikit-learn), augmented reality (OpenCV), ...
- Image processing skills: Fourier transform, filtering, segmentation, ...

Bachelor's degree in Computer Science

2019 - 2022

With high honours

University of Strasbourg, France

- Skills in various programming languages: C, C#, Java, Python, JavaScript.
- Skills in software analysis and design (object-oriented programming, UML).
- Mathematical skills: cryptography, information security, linear algebra, boolean logic, probability and statistics.
- 3D modeling and animation using Maya software.

Academic Exchange in South Korea

August 2021 - June 2022

Third academic year of Bachelor's degree

Soongsil University, Seoul, South Korea

PROFESSIONAL EXPERIENCES

3D/C++ Software Engineer

February - August 2024

Second-year Master's internship

Thales LAS, Élancourt, France

- Development of a procedural terrain generation tool.
- *Back-end* in modern C++ and *front-end* using Blender software's Python API.
- Python/C++ binding with the Nanobind library.
- Immersion within a Simulation team developing new innovative technologies.

3D Software Engineer

June - August 2023

First-year Master's internship

Thales Alenia Space, Esch-sur-Alzette, Luxembourg

- Investigation of the state-of-the-art technologies for creating immersive experiences, including virtual reality, augmented reality, realistic graphics and physics simulations.
- Development of a complete project using the Unreal Engine game engine combined with the Cesium plugin for georeferenced data visualization.
- Daily use of English in a professional environment.

Research Assistant - JavaScript Developer

July - August 2022

Third-year Bachelor's internship

ICube Research Laboratory, Illkirch-Graffenstaden, France

- Development of an interface to create RGB color maps by manipulating Bézier curves. These color maps were used to define colors for textures to display on 3D models.
- Project realized using Web technologies only: program logic in vanilla JavaScript and graphical interface displayed on HTML canvas.
- Development of algorithms modeling Bézier curves and B-Splines curves.

Power Apps Developer

July 2020

First-year Bachelor's internship

Corteva Agriscience, Cernay, France

- Development of a personal protective equipment ordering app for a SharePoint site with the Power Platform suite.

LANGUAGES

English: advanced (TOEFL)

French: native

German: basic knowledge