# Pauline Olivier

4th year PhD student in Computer Graphics

paulinehnolivier@gmail.com
linkedin/in/pauline-hn-olivier


## Interests

Sketch-based modeling,
Computer Animation,
3D Modeling,
Implicit surfaces.

## Programming

**Graphics**
Javascript (Three.js), C++ (OpenGL)

**Web**
Javascript, PHP, CSS, HTML

**Others**
Python, LaTeX, Java

## Miscellaneous

**Languages**
French Native
English C1 Level (TOEIC 945/990)
German & Czech notions

**Team activities**
President of the PhD association,
Member of a Volley-ball team

**Hobbies**
Drawing, Fantasy Reading

## Reviews

**IEEE Computer Graphics & Applications**
Special Issue Art and Cultural Heritage

**Virtual Reality & Intelligent Hardware**

## Education

**[October 2018 - ] Ph.D.** in Computer Graphics
*Dynamic sketches : Hierarchical modeling of complex and time-evolving scenes*
IP Paris, LIX, Ecole Polytechnique, France

**[2017-2018] M.Sc.** Graphics, Vision and Robotics with honors
Grenoble Alpes University, France

**[2015-2018] Engineer Degree**
Mathematical Modeling, Graphics and Simulation
ENSIMAG, Grenoble, France

**[2013-2015] Classes Préparatoires aux Grandes Écoles**
Preparation for national competitive entrance exams to French “Grandes Ecoles”,
Majoring in Mathematics and Physics

**[June 2013] French Baccalauréat S. with high honors**
Specialization in Mathematics and Physics

## Teaching

**Teaching Assistant at Ecole Polytechnique**

**3D Graphics [2019-2020, 2020-2021]**
practical sessions in C++ (OpenGL) - 40 hours

**Web programming [2019-2020]**
practical sessions in HTML/CSS/Javascript - 28 hours

**Expressive Modeling for 3D Fabrication [2018-2019, 2019-2020]**
practical sessions in Javascript (Three.js) - 45 hours

## Research projects

**[Spring 2018] LIX, Ecole Polytechnique, France**
5 months M.Sc. research internship
*Expressive digital design for architecture*

**[Summer 2017] SAP, Walldorf, Germany**
3 months internship into an international company
*Marten Recognition using Machine Learning techniques*

**[2017] INRIA Rhones-Alpes, Grenoble, France**
1/2 day per week from January to May 2017
*Properties and algorithms to generate construction’s graphs for CAO models*

## Publications & Communications

**2021 - Perceptual distribution of anisotropic 2D strokes**
Pauline Olivier, Pooran Memari and Marie-Paule Cani.
Talk at the French Workshop on Geometric Modeling (*Journées du Groupe de Travail en Modélisation Géométrique*), online, March 2021

**2019 - Nested Explorative Maps: A new 3D canvas for conceptual design in architecture**
Pauline Olivier, Renaud Chabrier, Damien Rohmer, Eric De Thoisy, and Marie-Paule Cani.
Technical paper at Shape Modeling International 2019 (special Issue Computer & Graphics)
Talk at the International Geometry Summit 2019, Vancouver (Canada), June 2019

**2018 - Interactive 3D canvases for a coarse-to-fine sketching - Application to conceptual design in architecture**
Pauline Olivier and Marie-Paule Cani
Short paper and talk at the Computer Graphics French Days (*Journées Française d'Informatique Graphique*), Poitiers (France), November 2018

## Software

**2021 - Online user study to infer design choices for the distribution project**
https://www.lix.polytechnique.fr/Labo/Pauline.Olivier/UserStudy/Texture/

**2019 - Online interactive demo in WebGL serving as prototype to illustrate the SMI'2019 paper.**
https://www.lix.polytechnique.fr/geovic/software.html