GIACOMO NAZZARO

giacomonazzaro.github.io
nazzarogiacomo@gmail.com
+39 3460188233

EXPERIENCE

Ph.D. student 2018 - now

Sapienza, University of Rome
Research in computer graphics, under the supervision of Prof. Fabio Pellacini.

Graduate researcher 2017

Sapienza, University of Rome
Development of a physically based volumetric path tracer for a research code-base.

PUBLICATIONS

DecoSurf: Recursive Geodesic Patterns on Triangle Meshes ongoing review

G. Nazzaro, E. Puppo, F. Pellacini

In this work, we show that may complex patterns can be generated directly on surfaces by the recursive application of few simple operators, based only on geodesic distances. Using this formulation, we present an interactive application for designing complex patterns on 3d models. We support interaction on commodity hardware with meshes of a few million triangles, by combining light data structures and a novel graph-based geodesic solver.

Yocto/GL: A Data-Oriented Library for Physically-Based Graphics STAG 2019

F. Pellacini, G. Nazzaro

Yocto/GL is a C++ library for computer graphics research and education. Its minimalistic design and data-oriented programming style makes it readable, extensible, and efficient. We developed Yocto/GL to meet our need, as a research group, of a simple and reliable code-base to experiment on research projects of various kind and is now publicly available.

EDUCATION

MSc in Computer Science 2016 - 2018

Sapienza, Rome 110/110 *with honors*

BS in Applied Mathematics 2013 - 2016

Tor Vergata, Rome 110/110 *with honors*

PROJECTS

Real-time rendering of clouds
System for real-time rendering and modeling of clouds, developed for a video game company.

CSP solver
A simple, self-contained, constraint satisfaction problem solver in C++.

Serialize
Header-only library for binary serialization of arbitrary data structures.

SKILLS

Development

C++, Python, GPU shaders, OpenGL
Confidence with high performance code, data-oriented design and object-oriented programming.

Computer graphics

Rendering, Geometry processing
Experience with light transport algorithms, Monte Carlo methods and real-time rendering.

Computer science

Data structures, Numerical methods
Strong knowledge of computer science fundamentals and mathematical tools.