Luca Morreale

Contact
London, United Kingdom

luca.morreale93@gmail.com

Languages
Italian, English

Programming
Python, C, C++
LaTeX
Pytorch

Links
Website
Github
Scholar

Research interest

I am a PhD candidate working at the intersection of computer vision, graphics, and machine learning.

Education

2019-Now — **PhD in Computer Science**
University College London (UCL), expected graduation June 2024
Advisor: Niloy J. Mitra

2015-2017 — **MSc. in Computer Science and Engineering**
Politecnico di Milano, Milan, Italy

2012-2015 — **BSc. in Computer Science and Engineering**
Politecnico di Milano, Milan, Italy

Experience

2023 June-Nov. — **Research Internship** at **Meta Reality Labs**
Scene geometry manipulation through natural language (LLMs) and user eye-gaze, supervised by Vasileios Balntas.

2021 June-Aug. — **Research Internship** at **Adobe Research**
Shape compression, deformation, and editing through convolutional representation under the supervision of Paul Guerrero.

2019 April-Sept. — **Research Assistant** at **Università della Svizzera Italiana**
Point cloud convolution for classification and correspondence under the supervision of Michael Bronstein.

2018-2019 — **Research Assistant** at **Politecnico di Milano**
Real-time point cloud semantic simplification for 3D scene reconstruction under supervision of Matteo Matteucci.

Publications

Euclid: Interactive Editing of Scene Geometry with Natural Language   Under review
Morreale L., Xie C., Avetisyan A., Lv Z., Aroudj S., Patra S., Yang T., Newcombe R., Balntas V., Howard-Jenkins H.
Submitted @ ICML 2024

Neural Semantic Surface Maps
Morreale L., Aigerman N., Kim V. G., Mitra N. J.
Eurographics 2024

Neural Convolutional Surfaces   Poster
Morreale L., Aigerman N., Guerrero P., Kim V. G., Mitra N. J.
Computer Vision and Pattern Recognition (CVPR) 2022

Neural Surface Maps   Poster
Morreale L., Aigerman N., Kim V. G., Mitra N. J.
Computer Vision and Pattern Recognition (CVPR) 2021

Dense 3D Visual Mapping via Semantic Simplification
Poster

Morreale L., Romanoni A., Matteucci M.
International Conference on Robotics and Automation (ICRA) 2019

Predicting the Next Best View for 3D Mesh Refinement
Oral

Morreale L., Romanoni A., Matteucci M.
International Conference on Intelligent Autonomous Systems (IAS-15) 2018

Learning and mining player motion profiles in Physically Interactive Robo-games
Journal

Oliveira E.L.S., Orrù D., **Morreale L.**, Nascimento T.P., Bonarini A.
Special Issue of Future Internet on Human-Robot Interaction 2017

Patents

2022   **Neural network based 3D object surface mapping**
V. Kim, N. Aigerman, N. J. Mitra, L. Morreale

Awards

2022   **Rabin Ezra scholarship**
The Rabin Ezra Scholarship Trust has been set up with the purpose of making available bursaries for post-graduate students specializing in computer graphics.

Teaching

2022   **Teaching Assistant for Acquisition and Processing of 3D Geometry**
University College London

2020-2022   **Teaching Assistant for Machine Learning for Visual Computing**
University College London

2018   **Teaching Assistant for Computer Science 101**
Politecnico di Milano, Milan, Italy