Giulia Rizzoli

Ph.D Student



Awarded Grants

- 2024 **Research Grant** from DAAD with ongoing work already resulting in 1 main conference CVPR paper.
- 2023 Research Grant, awarded €7K from Fondazione Aldo Gini for abroad projects.
- 2023 **Travel Fellowship** for ICCV conference to support diversity and inclusion in the Computer Vision community.
- 2022 2023 Research Scholarship during PhD, achieving 1 conference publication, 2 workshops and 2 journals.
- 2020 2021 **Erasmus+ for Studies and Traineeships** spent at RWTH Aachen and Sony as a research intern.

Work Experience

- Feb. 2024 Visiting Researcher, Technical University of Munich (TUM).
 - present 3D Reconstruction and Understanding for Autonomous Driving. Supervisor: Federico Tombari (Google/TUM).
- Oct. 2021 **Teaching Assistant**, University of Padova.
- Mar. 2024 Enhanced learning experience for 250+ students by leading laboratory sessions, grading 500+ assignments, and providing feedback on academic performance.
- Apr. 2021 Research Intern, Sony, Stuttgart, Germany.
- Aug. 2021 Engaged in cutting-edge research focusing on estimating reflectance from Time-of-Flight cameras. Led experiments in controlled lab settings, acquiring 3D data and analyzing material optical properties. Evaluated methodologies with precision-captured image data, driving advancements in the field.

Education

- Oct. 2021 Ph.D. in Information Engineering, University of Padova, Department of Information Engineering.
 - present Research topic: Multi-modal Scene Understanding. Supervisor: Pietro Zanuttigh
- 2020 2021 Erasmus+ in Electrical and Communication Engineering, RWTH Aachen.
- 2019 2021 M.Sc. in ICT for Internet and Multimedia, University of Padova.

Thesis: Reflectance Estimation using Time-of-Flight cameras.

Supervisors: Pietro Zanuttigh, Henrik Schäffer. Grade: 110/110 with honors.

2015 - 2019 **B.Sc. in Information Engineering**, University of Padova.

Thesis: Methods for the analysis of heterogeneous biological signals.

2014 College Exchange, Kings Colleges, Bournemouth, United Kingdom.

Skills

- O Programming: Python, C++, LATEX, PyTorch, TensorFlow, Git, Singularity, Slurm
- Languages: English (Professional), Italian (Native), German (Elementary)

Selected Publications

Multi-Modal CVPR24, HouseCat6D - A Large-Scale Multi-Modal Category Level 6D Object Pose Dataset with Household Objects in Realistic Scenarios (*Highlight*, 2.8% submissions)

ICASSP23, DepthFormer: Multimodal Positional Encodings and Cross-Input Attention for Transformer-Based Segmentation Networks

Continual **ECCV24**, Learning from the Web: Language Drives Weakly-Supervised Incremental Learning for Semantic Learning Segmentation

Domain WACVW24, Source-Free Domain Adaptation for RGB-D Semantic Segmentation with Vision Transformers Adaptation (Selected for Oral)

Federated When Cars meet Drones: Hyperbolic Federated Learning for Source-Free Domain Adaptation in Adverse Learning Weather (Under Review)

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