

About me

I am a passionate researcher in AI, Vision and Graphics. My main research interests include AI foundation problems applied to semantic scene understanding, 3D data processing and

Personal

Italian Girl, born 15 may 1997 Sports: Tennis, Climbing & Ski Arts: Painting & Drawing

Areas of specialization

Al foundation problems • Semantic Scene
Understanding • 3D Data Processing
• Extended Reality

Soft Skills

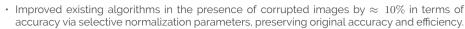
Public speaking, teamwork, mentoring and coaching, self-organization.

WORK EXPERIENCE

Apr 23-Pres Int

Intern Al Researcher Samsung Research · London, UK 💡

Efficient Object Recognition Models. Supervisor: Dr Mete Ozay.



- · Improved existing algorithms in personalized object detection by developing a DEMO.
- Published 2 paper and 1 submitted, filed 1 patent.

Sep 19-Pres | **Teaching Assistant**

UNIVERSITY OF PADOVA · Padova, IT 💡

M.Sc. courses: 3D Augmented Reality (4 years), Digital Forensics (1 year), Digital and Interactive Multimedia (1 year), Usability and User Experience (1 year).



SAMSUNG

Sep 22-Dec 22 | Unity C# Developer

UQIDO S.R.L. · Padova, IT 💡

Development of an interactive VR experience for Oculus Quest 2 platform. Collaboration with the Depat. of Pharmaceutical Sciences (UniPD).

UQIDO

EDUCATION

Sep 21-Pres

Ph.D. in Information Engineering

University of Padova · Italy 9

Research topic: "Advanced Learning Strategies for Multi-Modal Visual Scene Understanding". Supervisor: Prof. Simone Milani.



- · Collaborated with other Ph.D. students.
- · Mentored B.Sc. and M.Sc. final projects.

Seasonal Schools - M2L-2024, VS3-2024, GTTI-2022, ICVSS-2022, GTTI-2021, AIRONE-2021.

Sep 19-Sep 21

M.Sc. in Telecommunication Engineering

University of Padova · Italy ♥

Grade: 110/110 summa cum laude. Thesis: "Curriculum and Contrastive learning in LiDAR Semantic Segmentation", supervised by Prof. Simone Milani and Dr. Umberto Michieli.



Sep 16-Sep 19

B.Sc. in Information Engineering

University of Padova · Italy 🗣

Grade: 102/110 Thesis: "Mixed Reality Applications in Medical Therapy", Collaboration with Hannah Luxenberg Tono, Tactic Srl and Dreamship Studios Srl (USA).



TALKS

- **02/24** Paper [C1] presentation Samsung Research Institute,
 - London, UK
- **03/23 Introduction to Extended Realty** ITIS Barsanti of Castelfranco V.to.
- **O2/23** Learning Strategies for 2D-3D semantic segmentation Deep Learning Ph.D. course, UniPD.
- 12/22 Learning Strategies for 3D semantic segmentation -
 - DEITalks, UniPD.

C2

C1

01/22 Introduction to Extended Realty - IIS Veronese-Marconi of Chioggia.

Languages

Italian

English

mother tongue

■ ■ B2 Trinity ✓

French | A2

PROGRAMMING

Java	
Python	
Matlab	
C/C++	
C#	
Others	

CERTIFICATES & GRANTS

2021 Best student presentation award – APCCAS conference. Taiwan.

conference, laiwan.

21 Scholarship for best student award – Seasonal School AIRONE, Scuola Superiore S.Anna, Pisa, IT.

PUBLICATIONS

- C1 Elena Camuffo, Umberto Michieli, Simone Milani, Ji Joong Moon, and Mete Ozay. Enhanced Model Robustness to Input Corruptions by Per-corruption Adaptation of Normalization Statistics. In International Conference on Intelligent Robots and Systems (IROS). IEEE, 2024
- Francesco Barbato, Elena Camuffo, Simone Milani, and Pietro Zanuttigh. *Continual road- scene semantic segmentation via feature-aligned symmetric multi-modal network.* In International Conference on Image Processing (ICIP). IEEE, 2024.
- C3 Elena Camuffo, Umberto Michieli, Ji Joong Moon, Daehyun Kim, and Mete Ozay. *Fft-based selection and optimization of statistics for robust recognition of severely corrupted images*. In International Conference on Acoustics, Speech and Signal Processing (ICASSP).
- **C4** Campagnolo Devid*, Camuffo Elena*, Michieli Umberto, Borin Paolo, Milani Simone, and Giordano Andrea. *Fully automated scanto-bim via point cloud instance segmentation*. In International Conference on Image Processing (ICIP). IEEE, 2023.
- C5 Elena Camuffo and Simone Milani. Continual learning for lidar semantic segmentation: Class-incremental and coarse-to-fine strategies on sparse data. In International Conference of Computer Vision and Pattern Recognition Workshops (CVPRW). IEEE, 2022
- **C6** Elena Camuffo, Federica Battisti, Francesco Pham, and Simone Milani. *Deep 3d model optimization for immersive and interactive applications*. In 2022 10th European Workshop on Visual Information Processing (EUVIP). IEEE, 2022.
- **C7** Elena Camuffo, Luca Gorghetto, and Leonardo Badia. *Moving drones for wireless coverage in a three-dimensional grid analyzed via game theory.* In 2021 IEEE Asia Pacific Conference on Circuit and Systems (APCCAS), 2021.
- J1 Elena Camuffo, Umberto Michieli, and Simone Milani. Learning from mistakes: Self- regularizing hierarchical representations in point cloud semantic segmentation. Transactions on Multimedia, 2023.
- **J2** Daniele Mari, Elena Camuffo, and Simone Milani. *Cactus: Content-aware compression and transmission using semantics for automotive lidar data.* Sensors, 23, 2023.
- J3 Elena Camuffo, Daniele Mari, and Simone Milani. *Recent advancements in learning algorithms for point clouds: An updated overview.* Sensors, 22, 2022.