

Sports: Tennis, Climbing & Ski Arts: Painting & Drawing

#### Areas of specialization

Understanding · 3D Data Processing · Extended Reality

#### Soft Skills

Public speaking, teamwork, mentoring and

### **WORK EXPERIENCE**

#### **Intern Al Researcher** Apr 23-Pres

SAMSUNG RESEARCH · London, UK 💡

Efficient Object Recognition Models. Supervisor: Dr Mete Ozay.

- $\cdot$  Improved existing algorithms in the presence of corrupted images by pprox~10% in terms of accuracy via selective normalization parameters, preserving original accuracy and efficiency.
- · Improved existing algorithms in personalized object detection by developing a DEMO.
- · Published 1 paper and 2 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).



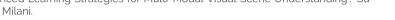
### EDUCATION

#### Sep 21-Pres

#### Ph.D. in Information Engineering

University of Padova · Italy • Research topic: "Advanced Learning Strategies for Multi-Modal Visual Scene Understanding". Supervisor: Prof. Simone Milani.

· Published first-authored papers at prestigious venues (TMM, ICASSP, ICIP).



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

Seasonal Schools - GTTI2022, ICVSS2022, GTTI2021, AIRONE2021.

#### 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

01/22

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

Introduction to Extended Realty - IIS Veronese-

# Programming



# LANGUAGES

#### Italian C2 mother tongue **English** C1 ■ | B2 √

motive lidar data. Sensors, 23, 2023.

French Α2

# **CERTIFICATES & GRANTS**

2021 Best student presentation award - APCCAS conference,

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

# **PUBLICATIONS**

- Elena Camuffo, Umberto Michieli, Ji Joong Moon, Daehyun Kim, and Mete Ozay. Fft-based selection and optimization of statistics for obust recognition of severely corrupted images. In International Conference on A coustics. Speech and S anal Proces IEEE, 2023.
- 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.
- 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,
- Elena Camuffo, Federica Battisti, Francesco Pham, and Simone Milani. Deep 3d model optimization for immersive and interactive C4 applications. In 2022 10th European Workshop on Visual Information Processing (EUVIP). IEEE, 2022.
- 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.
- Elena Camuffo, Umberto Michieli, and Simone Milani. Learning from mistakes: Self- regularizing hierarchical representations in point cloud semantic segmentation. Transactions on Multimedia, 2023.
- Francesco Barbato, Elena Camuffo, Simone Milani, and Pietro Zanuttigh. Continual road-scene semantic segmentation via featurealigned symmetric multi-modal network. arXiv preprint arXiv:2308.04702, 2023.
- Daniele Mari, Elena Camuffo, and Simone Milani. Cactus: Content-aware compression and transmission using semantics for auto-
- Elena Camuffo, Daniele Mari, and Simone Milani. Recent advancements in learning algorithms for point clouds: An updated overview. Sensors, 22, 2022.

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#### About me

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

**Personal** Italian Girl, born 15 may 1997

Al foundation problems · Semantic Scene

coaching, self-organization.