Zeno Sambugaro

CONTACT

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https://github.com/zenosambu

europass

EDUCATION AND TRAINING

2 NOV 2020 – CURRENT

Ph.D. in Computer Vision

University of Trento

Field(s) of study

- Computer Vision

EQF level 8 | www.unitn.it

14 SEP 2018 – 21 OCT 2020 – Via Sommarive, Trento, Italy

Master Degree in Information and Communication Engineering

Unversity of Trento

Field(s) of study

- Information and Communication Technologies : *Information and Communication Technologies (ICTs) not further defined*

110L | Out-of-Distribution detection in videos using a union of 1-dimensional subspaces | EQF level 7 | https://www.unitn.it/

SEP 2015 – 10 OCT 2018 – Trento, Italy

Bachelor Degree in Information and Communication Engineering

University of Trento

SEP 2010 – JUN 2015 – Verona, Italy

High school studies

Istituto Salesiano San Zeno

Final grade: 96/100

WORK EXPERIENCE

27 FEB 2021 – CURRENT – Trento, Italy

Teaching Assistant for the Digital Signals Transmission course

DISI, University of Trento

- Teaching lab sessions for students with different backgrounds.
- Renewing and updating course material to stay up to date.
- Mentoring and tutoring students during projects and thesis.
- Evaluating students during oral exams and projects.

2014

Electric technician

Elettrotecnica Grassi

Internship, aimed at:

- electrical systems design.

- civil electrical systems set up.

Verona, Italy

LANGUAGE SKILLS

MOTHER TONGUE(S): Italian

OTHER LANGUAGE(S):

English

Listening	Reading	Spoken production	Spoken interaction	Writing
C1	C1	C1	C1	C1

DIGITAL SKILLS

Programming languages (Python and R program) / Good familiarity with MATLAB, Simulink / PyTorch Lightning / Weights & Biases / Latex: advanced user

CO-SUPERVISED MASTER THESIS

2022

GrowNERF: a boosting framework to improve the training speed of neural radiance fields.

Master Degree in Computer Science.

2022

View Synthesis and 3D Mesh Generation through Neural Radiance Fields.

Master Degree in Computer Science.

2021

SinGAN 3D: a novel framework for volume synthesis from a single voxelized model.

Master Degree in Computer Science.

PUBLICATIONS

Interpretable part-whole hierarchies and conceptual-semantic relationships in neural networks

2022 https://arxiv.org/pdf/2203.03282.pdf
Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition
Agglomerator, a framework capable of providing a representation of part-whole hierarchies from visual cues and organizing the input distribution matching the conceptual-semantic hierarchical structure between classes.

Out-of-distribution detection using union of 1-dimensional subspaces

2021 https://openaccess.thecvf.com/content/CVPR2021/papers/Zaeemzadeh_Out-of-Distribution_Detection_Using_Union_of_1-Dimensional_Subspaces_CVPR_2021_paper.pdf
Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition
In this paper, we argue that OOD samples can be detected more easily if the training data is embedded into a low-dimensional space, such that the embedded training samples lie on a union of 1-dimensional subspaces.