Curriculum vitae

Guglielmo Camporese

(pron. gool-yell-moe)

last update: 2023/02

▬ Personal

Birth	Camposampiero (PD), Italy, on March 8th 1993. Italian citizen. Male.
Residence	Via Santa Caterina 4 Interno 1, 35121, Padova, Italy
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GitHub	github.com/guglielmocamporese

▬ Work Experience

04-07/2023 — **Research Scientist Intern**
Disney Research Studios - Zurich, Switzerland
Working on Neural Network optimization.

12/2021 - 09/2022 — **Applied Scientist Intern**
Amazon Web Services AI Labs - Seattle, Washington
Worked on the Amazon Web Services AI Labs on the Rekognition team in a research project focused on video predictive understanding using deep learning models. In particular, I investigated and innovated how to anticipate and early-recognize events on videos before they occur.

06-09/2020 — **Applied Scientist Intern**
Amazon Alexa AI - Turin, Italy
Worked on improving recognition of speech with disfluencies in the Amazon Alexa Automatic Speech Recognition (ASR) team. During the project, I worked on the multi-lingual modeling of particular speech disorders, mining relevant datasets, designing and training neural network architectures, and delivering high-quality results.

11/2018 - 10/2019 — **Deep Learning and Computer Vision Engineer**
Aquifi Inc. - Palo Alto, California
Implemented deep learning systems for anomaly detection on multi-view structured input images on highly imbalanced datasets using state-of-the-art and implementing custom CNNs. Worked with a variety of tools, including Python, TensorFlow, and C++, as well as HTML, javascript, and CSS for experiment visualizations.

▬ Education

10/2019 - 02/2023 — **Ph.D. in Brain, Mind and Computer Science**
University of Padova, Department of Mathematics and Psychology - Padova, Italy
Thesis: Prediction of Activities and Visual Concepts Under Complex and Changing Conditions
Supervisor: Lamberto Ballan - **Co-supervisor:** Gianluca Campana

2016 - 2019 **M.Sc. in Telecommunications Engineering, 110/110 e Lode**
University of Padova, Department of Information Engineering - Padova, Italy
Thesis: Semantic Segmentation for Visual Inspection
Supervisor: Pietro Zanuttigh

2012 - 2016 **B.Sc. in Information Engineering**
University of Padova, Department of Information Engineering - Padova, Italy
Thesis: Algorithms for Sound Synthesis through Physical Modeling
Supervisor: Federico Avanzini

2007 - 2012 **Scientific High School Diploma**
Liceo Scientifico "Ettore Majorana" - Mirano, Venezia, Italy

Academic Work Experience

2020 - 2021 **Teacher Assistant**
University of Padova - Padova, Italy
Teacher assistant for the machine learning class in the Data Science Master Degree. In particular, I lectured class lessons, prepared the laboratories, and I supervised and evaluated the students for their final project of the course.

2019 - 2023 **Thesis Co-Supervisor**
University of Padova - Padova, Italy
During my Ph.D. I co-supervised 9 Master Students (from the Computer Science and Data Science degree) and 1 Bachelor Student (from the Computer Science degree) in their final thesis.

2019 - 2023 **Service**
I served as a reviewer in top venues such as: ICCV-2023, CVPR-2023, TPAMI-2022, CVPR-2021, ICPR-2020.

Publications

Conference N. Osman, G. Camporese, L. Ballan, "TAMFormer: Multi-Modal Transformer with Learned Attention Mask for Early Intent Prediction ", International Conference on Acoustics, Speech and Signal Processing, Rhodes Island, Greece, 2023. (ICASSP 2023).

Conference G. Camporese, E. Izzo, L. Ballan, "Where are my Neighbors? Exploiting Patches Relations in Self-Supervised Vision Transformer", British Machine Vision Conference, London, UK, 2022. [oral spotlight] (BMVC 2022). (previously selected as oral splotlight at the "Transformers for Vision Workshop (T4V)" at CVPR 2022, New Orleans, Louisiana.)

Conference N. Osman, E. Cancelli, G. Camporese, P. Coscia, L. Ballan, "Early Pedestrian Intent Prediction via Features Estimation", IEEE International Conference on Image Processing, Bordeaux, France, 2022. (ICIP 2022)

Conference Y. Guo*, G. Camporese*, W. Yang, A. Sperduti, L. Ballan, "Conditional Variational Capsule Network for Open Set Recognition", International Conference on Computer Vision, Virtual, 2021. (ICCV 2021).

Conference N. Osman, G. Camporese, P. Coscia, L. Ballan, "SlowFast Rolling-Unrolling LSTMs for Action Anticipation in Egocentric Videos", International Conference on Computer Vision, Virtual, 2021. (ICCVw 2021).

Conference	V. Mendelev*, T. Raissi*, G. Camporese, M. Giollo, "Improved Robustness to Disfluencies in RNN-Transducer Based Speech Recognition", International Conference on Acoustics, Speech and Signal Processing, Toronto, Canada, 2021. (ICASSP 2021).
Conference	G. Camporese, P. Coscia, A. Furnari, G. M. Farinella, L. Ballan, "Knowledge Distillation for Action Anticipation via Label Smoothing", International Conference on Pattern Recognition, Milan, Italy, 2020. (ICPR 2020).

Computer Skills

Languages and Tools for Machine Learning and Computer Vision - Python, PyTorch, PyTorch Lightning, TensorFlow, NumPy, Keras, OpenCV, Scikit-learn, Pandas, MatplotLib

Other Languages and Tools - Git, HTML, Flask, C/C++, Javascript, Matlab, Mathematica, Arduino

Languages

Italian	Mother tongue
English	Full professional proficiency
French	Basic

Extra

2019	**Certification** - Fundamentals of Reinforcement Learning, *Coursera*
2018	**Certification** - Deep Learning Specialization, *Coursera*
2018	**Certification** - Sequence Models, *Coursera*
2017	**Certification** - Convolutional Neural Networks, *Coursera*
2017	**Certification** - Structuring Machine Learning Projects, *Coursera*
2017	**Certification** - Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization, *Coursera*
2017	**Certification** - Neural Networks and Deep Learning, *Coursera*
2011	**Diploma** - Diploma in Music Theory, *Conservatory Giuseppe Tartini*, Trieste

Side Experience

2016 - 2018	**Math/Physics Tutor**, *Private lessons* - Padova, Italy
2016 - 2017	**Piano Teacher**, *La Casa Della Musica* - Padova, Italy

Interests

Deep learning, machine learning, computer vision, playing piano, guitar and synths, pruducing electronic music.