

Curriculum vitae

Guglielmo Camporese

last update: 2022/10

Personal

Birth: Camposampiero (PD), Italy, on March 8th 1993. Italian citizen. Male.

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GitHub: <https://github.com/guglielmocamporese>

Work Experience

Amazon Web Services AI Labs

Seattle, Washington

Applied Science Intern

2021/12–2022/09

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.

Amazon Alexa AI

Turin, Italy

Applied Science Intern

2020/06–2020/09

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 modelling of particular speech disorders, mining relevant datasets, designing and training neural network architectures and delivering high quality results.

University of Padova

Padova, Italy

Machine Learning Teacher Assistant

2020/03–2021/03

Teacher assistant for the machine learning class in the Data Science Master Degree. In particular, I lectured lessons, I prepared the laboratories, and I supervised and evaluated the students for their final project of the course.

Aquifi Inc.

Palo Alto, California

Deep Learning and Computer Vision Engineer

2018/11–2019/10

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 experiments visualizations.

Education

Ph.D. Student in Brain Mind and Computer Science

Padova, Italy

University of Padova, Department of Mathematics and Psychology

2019–2023 (expected)

MS degree in Telecommunications Engineering, 110/110 e Lode

Padova, Italy

University of Padova, Department of Information Engineering

2016–2019

BS degree in Information Engineering

Padova, Italy

University of Padova, Department of Information Engineering

2012–2016

Publications

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 spotlight at the "Transformers for Vision Workshop (T4V)" at CVPR 2022, New Orleans, Louisiana.)

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

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: 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: 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).

Thesis

PhD: "Prediction of Activities and Visual Concepts Under Complex and Changing Conditions". Supervisor: Lamberto Ballan, Co-Supervisor: Gianluca Campana

MS: "Semantic Segmentation for Visual Inspection". Supervisor: Pietro Zanuttigh

BS: "Algorithms for Sound Synthesis through Physical Modeling". Supervisor: Federico Avanzini

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

Extra

2019: Fundamentals of Reinforcement Learning, *Coursera*

2018: Deep Learning Specialization, *Coursera*

2018: Sequence Models, *Coursera*

2017: Convolutional Neural Networks, *Coursera*

2017: Structuring Machine Learning Projects, *Coursera*

2017: Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization, *Coursera*

2017: Neural Networks and Deep Learning, *Coursera*

2011: Diploma in Music Theory, *Conservatory Giuseppe Tartini, Trieste*

Side Experience

Math/Physics Tutor <i>Private lessons</i>	Padova, Italy <i>2016–2018</i>
Piano Teacher <i>La Casa Della Musica</i>	Padova, Italy <i>2016–2017</i>

Interests

- Deep learning, machine learning, computer vision, piano, guitar, electronic music production