

Curriculum vitae

Guglielmo Camporese

last update: 2021/09

Personal

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

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Education

Ph.D. Student in Brain Mind and Computer Science <i>University of Padova, Department of Math (Tullio Levi-Civita) and Psychology</i>	Padova, Italy 2019–Present
MS degree in Telecommunications Engineering, 110/110 e Lode <i>University of Padova, Department of Information Engineering (DEI)</i>	Padova, Italy 2016–2019
BS degree in Information Engineering <i>University of Padova, Department of Information Engineering (DEI)</i>	Padova, Italy 2012–2016

Work Experience

Amazon <i>Applied Scientist Intern</i>	Turin, Italy 2020/06–2020/09
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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 <i>Machine Learning Teacher Assistant</i>	Padova, Italy 2020/03–Present
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Teacher assistant for the machine learning class at the data science master degree. Prepared and lectured lessons and laboratory for students.

Aquifi Inc. <i>Deep Learning and Computer Vision Engineer</i>	Palo Alto, California 2018/11–2019/10
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Implemented deep learning systems for anomaly detection on highly imbalanced datasets using state of the art CNNs. Worked with a variety of tools, including Python, TensorFlow and C++ as well as html, javascript and css for experiments visualizations.

Publications

Workshop: 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

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

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

Selected MS Projects

Learning Invariances in Speech Recognition. [github]

Speech Recognition with CNNs and data augmentation.

Speech Classification, a dictionary approach with MFCC and Dynamic Time Warping [link]

Classification of audio commands using dynamic time warping.

A Deep Introspection on Generative Adversarial Networks [github]

Study and implementation of a GAN with Goodfellow's approach.

Text Mining Complex Network [link]

Mining of context informations from a wikipedia web page through the complex network theory.

Computer Skills

Languages and Tools for Machine Learning and Computer Vision: Python, PyTorch, TensorFlow 1.x and 2.x, NumPy, Keras, OpenCV, Scikit-learn, Pandas, Matplotlib

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

Languages

Italian: Mother tongue

English: Professional knowledge

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 Padova, Italy
Private lessons 2016–2018

Piano Teacher Padova, Italy
La Casa Della Musica 2016–2017

Interests

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