

# Curriculum vitae

## Guglielmo Camporese

last update: 2021/03

### Personal

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**Birth:** Camposampiero (PD), Italy, on March 8<sup>th</sup> 1993. Italian citizen. Male.

**Residence:** Via Desman 221/e, 35010, Borgoricco (PD), Italy

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### Education

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**Ph.D. Student in Brain Mind and Computer Science** **Padova, Italy**  
*University of Padova, Department of Math (Tullio Levi-Civita) and Psychology* *2019–Present*

**MS degree in Telecommunications Engineering, 110/110 e Lode** **Padova, Italy**  
*University of Padova, Department of Information Engineering (DEI)* *2016–2019*

**BS degree in Information Engineering** **Padova, Italy**  
*University of Padova, Department of Information Engineering (DEI)* *2012–2016*

### Work Experience

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**Amazon** **Turin, Italy**  
*Applied Scientist 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–Present*

Teacher assistant for the machine learning class at the data science master degree. Prepared and lectured lessons and laboratory for students.

**Aquifi Inc.** **Palo Alto, California**  
*Deep Learning and Computer Vision Engineer* *2018/11–2019/10*

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

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**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

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**MS:** "Semantic Segmentation for Visual Inspection." Supervisor: Pietro Zanuttigh  
**BS:** "Algorithms for Sound Synthesis through Physical Modeling". Supervisor: Federico Avanzini

## Selected MS Projects

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**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

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**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

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**Italian:** Mother tongue  
**English:** Professional knowledge

## Extra

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**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

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

## Interests

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