

Antonio Orvieto

Resume

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Born in Padua (Italy) on October 09, 1993.

Education

- Nov 2018 - present - **Scientific assistant / PhD Student in Machine Learning**, *ETH Zürich*, Data Analytics Lab under Thomas Hofmann, working on large-scale optimization for machine learning; publications:
- ▷ An Accelerated DFO Algorithm for Finite-sum Convex Functions ([link](#)), ICML 2020.
 - ▷ A Continuous-time Perspective for Acceleration in Riemannian Optimization ([link](#)), AISTATS, 2020.
 - ▷ Continuous-time Models for Stochastic Optimization Algorithms ([link](#)), NeurIPS, 2019.
 - ▷ Shadowing Properties of Optimization Algorithms ([link](#)), NeurIPS, 2019.
 - ▷ The Role of Memory in Stochastic Optimization ([link](#)), UAI, 2019.
- Mar 2016 - **Robotics, Systems and Control MSc mit Auszeichnung**, *ETH Zürich*, GPA 5.86/6.00,
Sept 2018 focus on machine learning, system identifications and control theory.
Project : "Scalable Inference of Parameters in Non-Linear ODEs".
Thesis : "Stochastic Calculus for Non-Convex Optimization".
- Oct 2012 - **Information Engineering BSc cum laude**, *University of Padua*, GPA 110/110, Top 3%,
Sept 2015 focus on information theory, control systems and electronics.
Thesis: "Topics in Quantum Probability Theory for Quantum Control".

Work experience (before PhD)

- Oct 2012 - present - **Volunteer at p63 EEC Syndrome International (non-profit organization)**, *Padua(IT)*, supported by Prof. Di Iorio (UNIPD), analysis of RNAseq data for research in rare diseases.
- Jun 2018 - **Student Research Assistant at ETH (Prof. Buhmann's Group)**, *Zürich(CH)*, supervised by
Oct 2018 Stefan Bauer, application of machine learning to system identification in cell signaling networks.
- Oct 2017 - **Student Research Assistant at ETH (Prof. Stelling's group)**, *Zürich(CH)*, supervised by
Jun 2018 Stefan Bauer, model-driven experimental design of TOR signaling (SystemsX.ch/SignalX).
- Mar 2017 - **Intern at HILTI Research (Advanced Mechatronics Team)**, *Schaan(LI)*, signal processing
Aug 2017 and machine learning for control and detection in power tools.
▷ [PCT patent filed](#) Dec-18-2018: "Setting method for a screw connection using an impact screwdriver".
- Spring 2016 **Student Teaching Assistant at ETH**, *Zürich(CH)*, Statistical Learning Theory lecture.

Technical Skills

- o Deep learning in PyTorch and TensorFlow.
- o Inference, analysis and modeling in computational systems biology.
- o Design of numerical signal processing algorithms in both time and frequency domains.
- o Controller design and system identification in MATLAB/Simulink.
- o Programming of embedded control systems in C (Freescale, Arduino and Raspberry Pi).
- o Web programming using HTML, CSS, Javascript, PHP and MySQL.

Other Skills/Interests

Cello player, I started taking private cello lessons at the age of 5. During high school, I attended lectures at the conservatory in Padua and participated in two summer schools at the *Karntner Landeskonservatorium in Klagenfurt (Austria)*.

Competitive tennis player, Member of the *Italian Tennis Federation (FIT)* in 2009 and 2010. Been official and ball boy in several national competitions.

Philosophy enthusiast, I am interested in modern and post-modern thinkers and in mysticism.

Languages

- Italian **Mother Tongue**
English **Advanced (IELTS C1 level)**