

- Research experience in analyzing and proposing state-of-the-art solutions to control and estimation problems
- Innovative tech mind with several years of hands-on programming experience in object-oriented languages

Professional Experience

- May 2016 - **Research Associate in Control Engineering**, *Chair of Information-oriented Control, Technical University of Munich.*
- Development of a mathematical framework for event-based control in the large-scale networked control systems and several experimental validations through MATLAB, C++ and ROS
 - Teaching Assistant for Control Systems 2 (Winter semesters 2016 – 2019): Organized tutorials to clarify course material. Held introductory lectures to MATLAB's Control System Toolbox. Conceived, wrote, and graded problem sets and exam questions for approximately 100 students each year
 - Supervision of two thesis, a Forschungspraxis and Advanced Control Laboratory course
- Mar 2019 – Apr 2019 **Control Engineering - R&D Intern**, *Siemens, Department of Corporate Technology, Munich.*
- Interactive presentation session of my Ph.D. work to the R&D group
 - Carried out several discussion with the team members in order to understand the gap between my research direction and industrial applications
- Apr 2018 – Jun 2018 **Visiting Research Associate in Control Engineering**, *Delft University of Technology, Delft, The Netherlands.*
- Development of a mathematical framework for event-based estimation in the presence of imperfect communication network
 - Implementation of a numerical simulation in MATLAB for the validation of the approach
- Apr 2015 – Jul 2015 **Research Associate in Control Engineering**, *Linköping University, Sweden.*
- Worked on different scientific papers enlightening the main results of my master's thesis. A journal paper was published in IEEE-TAC and conference papers at CDC2015 and CDC2016
 - First experience with the challenges and beauties of doing state-of-the-art research
- Jul 2008 – May 2009 **Founder and Developer**, *Lebid di Precious Abara, Italy.*
- Developed and managed a unique-bid e-commerce site from scratch
 - Started the company with a friend. Every aspect from coding to security and market research was entirely taken care of by us.
- Jun 2007 – Jul 2007 **Java Developer Intern**, *Città dei Mestieri e delle Professioni di Treviso, Italy.*
- Development, as part of a team, of a software necessary for the management of the training courses offered by Città dei Mestieri
 - Design of a user-friendly interface with GUI, drag and drop functionality and multi-threading,

Education and Training

- May 2016 – **Ph.D. Candidate and Research Assistant**, *Technical University of Munich, Chair of Information-oriented Control.*
- Project title: Optimization of Interconnected Cyber-Physical Systems with Resource Constraints:
- Event-based state estimation, scheduling and control in Networked Control Systems
 - Distributed control strategies for large-scale interconnected systems
 - Optimization of control and communication cost in resource-constrained applications
- Dec 2019 – May 2020 **Self-Driving Car Engineer Nanodegree**, *Udacity.*
- The Udacity Self-Driving Car Nanodegree included projects on Computer Vision, Deep Learning, Sensor Fusion, Localization, Control, Path Planning and System Integration.
- May 2016 – May 2019 **EU Marie Skłodowska-Curie Initial Training Network oCPS**, *Technical University of Munich, Training in Platform-aware Model-driven Optimization of Cyber-Physical Systems.*
- Some soft skills courses included Organization Integrity and Intellectual Property, Industrialization & Commercialization, Teaching & Supervision, Scientific Writing & Presenting.

- Oct 2012 – Dec 2014 **Master of Science in Automation Engineering**, *University of Padova*, Italy.
Final mark 110/110 *cum laude* equivalent to TUM's 1.0 (Recognition by TUM Graduate School).
Thesis: "On the stability of positive nonlinear systems: Cooperative and concave system dynamics with applications to distributed networks."
International experience: The thesis was carried out at Linköping University, Sweden.
Program: Advanced and modern tools for the design of complex control systems.
- Oct 2008 – Sep 2012 **Bachelor of Science in Information Engineering**, *University of Padova*, Italy.
Final mark 103/110.
Thesis: "A real-time realization of IIR resonant filters in a model of ear acoustic filtering for spatial sound rendering."

Skills and Interests

- Technical** C++, ROS, MATLAB, \LaTeX , Linux, GIT, Microsoft Office
- Soft** Leadership, presentation skills, critical thinking, collaboration skills
- Personal** Dancing, music, technology, traveling, cultures, video games, programming
- Language** Bilingual proficiency in **Italian**, full professional proficiency in **English** and limited working proficiency in **German**.

Publications and Conferences

5 first author; 1 co-author; 1 published first author journal; 2 conference presentations; \sim 15 poster presentations

Honors and Awards

- Dec 2010 – Dec 2014 **University of Padova, Italy**, Scholarship for students with an outstanding curriculum.
- May 2016 – May 2019 **European Commission Horizon 2020 Marie Skłodowska-Curie Action**, *for early stage researchers*.