

Charlott Vallon

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Education

Ph.D, Mechanical Engineering | August 2017 –
University of California, Berkeley
Major: Controls

Master of Science, Mechanical Engineering | May 2017
ETH Zürich

Bachelor of Science, Mechanical Engineering | May 2015
University of California, Berkeley
Dean's Honors List, Mary C. and William G. Drake Scholar

Skills and Interests

Languages
German (native), English (native), Spanish

Programs
Python, Matlab, C++, Lua, CAD, LabView, Simulink, Mathematica

Hobbies
Running, hiking, windsurfing, writing, fermenting

Leadership and Involvement

Mechanical Engineering Graduate Student Council | 2018 –
Social Chair

Expanding Your Horizons at UC Berkeley | 2017 –
Head of Parent Workshop Planning Committee

ETH AMIV Kontakt | 2015 – 2016
Head of Infrastructure Committee

Engineers Without Borders UC Berkeley | 2012 – 2015
President of campus chapter

Research and Industry Experience

Autodesk Machine Learning Intern | May – August 2017

Robot learning from demonstration in virtual reality environments through deep reinforcement learning

UC Berkeley Model Predictive Control Lab, Visiting Researcher | August 2016 – May 2017

Writing, implementing, and testing machine learning algorithms that learn safe and personalizable behavior models from driver data for autonomous vehicles

ETH Wearable Systems Lab, Student Researcher | June – August 2016

Designed in SolidWorks and fabricated wearable multisensor devices

ETH Sensory Motor Systems Lab, Student Researcher | January – June 2016

Integrated various sensors for measuring meaningful human-exosuit interaction forces that were determined to provide critical insight into safety and comfort

Accenture AG Switzerland Intern | May – August 2014

Mathematical data analysis of client budget and spending

Autodesk Design, Lifecycle, and Simulation Group Intern | January – May 2014

Material property analysis for 3D printing software library

Autodesk Applied Innovation Intern | May – August 2013

Software modeling and design analysis of mechanical systems for 3D printing
Co-filed a design patent

Teaching and Publications

Vehicle Dynamics and Controls | Spring 2018

Head GSI, designed and led the hands-on labs for the course

1. **C. Vallon** and F. Borrelli: “Model-Based Task Transfer Learning for Iterative Learning Controllers” submitted to 2019 IEEE American Control Conference (ACC).
2. **C. Vallon**, Z. Ercan, A. Carvalho and F. Borrelli: “A machine learning approach for personalized autonomous lane change initiation and control” in 2017 IEEE Intelligent Vehicles Conference (IV). [[PDF](#)]