

# Jonas G. Matt

PHD CANDIDATE, AUTOMATIC CONTROL LABORATORY

ETH Zurich, Switzerland

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## Bio

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I am a PhD candidate at the Automatic Control Laboratory of ETH Zurich. I strive to make the systems and infrastructure we use everyday smarter, more efficient, more sustainable and more comfortable to use. I believe that control theory, machine learning, and data science are the tools that will help us achieve that.

My previous work has ranged from modeling the physics of soft robots to real-time voltage control in power networks. Next to academia, I have obtained professional experience in data analytics, renewable energy systems, and IoT technologies. Presently, my research focuses on the future proofness of energy systems.

## Education

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### ETH Zurich

PhD candidate at Automatic Control Laboratory (IfA)

Zurich, Switzerland

Sep 2024 - current

### Stanford University

Visiting student researcher

- Conducted my master thesis as a visiting student researcher in Marco Pavone's Autonomous Systems Lab
- Topic: Using Adiabatic Spectral Submanifolds for the Data-Driven Control of Nonlinear Continuum Robots

Stanford, USA

Mar 2023 - Aug 2023

### ETH Zurich

MSc in Robotics, Systems and Control

- ETH Foundation Excellence Scholar
- Graduated with distinction
- GPA: 5.9/6.0
- Courses: Machine Learning, Probabilistic Artificial Intelligence, Computer Vision, Robot Autonomy, Nonlinear Systems and Dynamics, Control of Power Grids, Dynamic Programming and Optimal Control

Zurich, Switzerland

Sep 2021 - Sep 2023

### ETH Zurich

BSc in Electrical Engineering and Information Technology

- Graduated among top 1.5% of class
- GPA: 5.8/6.0
- Thesis: Online Feedback Optimization for Minimal Curtailment of Renewable Energy with Real Data

Zurich, Switzerland

Sep 2018 - Aug 2021

## Professional Experience

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### ABB

Research Intern

- Prototyping new on-the-edge compression and analytics algorithms for time series data.

Baden-Daettwil, Switzerland

Apr 2024 - Aug 2024

### ETH juniors

Machine Learning Analyst

- Design and implementation of an ML algorithm for the evaluation of patents in the watchmaking industry
- Building from scratch a data pipeline based on publicly available patent data
- Data analysis and visualization to provide tangible intelligence on the client's patent portfolio

Zurich, Switzerland

Nov 2023 - Mar 2024

### candi solar

Asset Intelligence (Data Analyst)

- Development of improved IoT PV data pipeline
- Data analysis of pilot-systems for automatic cleaning of photovoltaic plants
- Knowledge exchange and collaboration with team members in foreign markets (South Africa, India)
- On-the-ground experience in South Africa

Zurich, Switzerland

Aug 2021 - Feb 2022

## Programming Skills

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**Python** Pandas, PyTorch, Scikit-Learn, Numpy, etc.

**Others** C(++), MATLAB, Java, Go, HTML/CSS, Rust

**Miscellaneous** Linux,  $\LaTeX$ , Microsoft Office, Git, Photo and Video Editing

## Honors and Awards

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2021 **Excellence Scholarship and Opportunity Program (ESOP)**, ETH Foundation

## Interests

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**Soccer** I have played club soccer up to high amateur level all throughout my life, and there is few things I enjoy doing more.

**Sailing** During summer, I take my friends for small sailing cruises on Lake Constance which I am lucky to call my home.

**Music** I have been playing the piano since I was little and my love for music, including both the piano and DJing, is still strong.

**Outdoor sports** I love being surrounded by nature and the mountains in particular, explaining my passion for skiing, hiking and biking.

## Languages

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**German** Native proficiency

**English** Fluent proficiency

**French** Intermediate proficiency (B2)

**Spanish** Basic proficiency (A1)

References available upon request.