# MARTIN
# INAUEN

## / EDUCATION

**MSc Robotics, Systems and Control** September 2022 - October 2024
**ETH Zurich, Zurich**
GPA ongoing: 5.4
Thesis: *«Visual Localization in 2D Floorplans»* at Magic Leap Zurich
Exchange Semester: Hong Kong University of Science and Technology, Spring 2023
Focus on artificial intelligence, computer vision, control systems, embedded control

**BSc Mechanical Engineering** September 2018 - August 2021
**ETH Zurich, Zurich**
GPA: 4.9
Thesis: *«Object Detection and Grasp Planning with an Omnidirecitonal Aerial Manipulator»*
Focus project: Building a flying manipulator

## / WORK EXPERIENCE

**Research Intern** March - September 2024
**Magic Leap Zurich /** Oerlikon, Zurich
Master's Thesis in the field of computer vision, machine learning.

**Mechatronics Intern** October 2021 - July 2022
**Helbling Technik AG /** Altstetten, Zurich
Hardware design, sourcing and assembly of prototype for medicinal use.
Modeling and Simulation of Digital Twin for industrial partner.
Data acquistion and analysis of experimental setup in field of semiconductors

**Technical Support** April - October 2020, August - December 2022
**Belimo Automation AG /** Hinwil, Zurich
Supporting a software team in developing the digital tools, working on the product front-end of Belimo Assistant App, testing of tools before market-launch

**Workshop Training** August-September 2018
**thyssenkrupp Presta AG /** Oberegg, Appenzell
6 week workshop training as part of bachelors programm.
Learning different manufacturing techniques such as CNC-mililing/turning

## / PROJECTS

**Master's Thesis** March 2024 - October 2024
**Magic Leap /** Oerlikon, Zurich
*«Visual Localization in 2D Floorplans»*
Building an entire pipeline for visual localization in 2D floorplans for a realistic use case.
Deep Learning (Pytorch), Computer Vision, Python

**Semester Project** September 2023 - January 2023
**Empa /** Dübendorf, Zurich
*«Developement of a supervised Machine Learning Model for non-intrusive Occpuancy Detection»*
Data Collection, Feature Engineering, Modeling, Evaluation

**Focus Project** September 2020 - August 2021
**Griffin /** ETH Zurich, Zurich
Building an omnidirectional flying manipulator in a team of 8 students during a year.
*«Design of PrisMAV: An Omnidirectional Aerial Manipulator based on a 3-PUU Parallel Mechanism»* Best Paper Award ICUAS 2023
Simulation (Gazebo/ROS), System Modeling (Matlab), Control, High-level programming (C++/Python), Electronics

## / CONTACT

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## / SKILLS

**Professional:**
- Problem Solving
- Computer Vision
- Artificial Intelligence
- System Modeling
- Control
- Mechatronic Design

**Programming:**
- Python (Proficient)
- C++ (Intermediate)
- ROS/Gazebo (Proficient)
- Matlab (Intermediate)
- Java (Basic)

## / LANGUAGE

**German** **English**
Native Proficient

**Spanish** **French**
Intermediate Elementary

## / INTERESTS

- Being Outdoors
- Climbing, Skiing
- Open Source
- Photography

## / REFERENCES

Available upon request