

Alessio Rimoldi

it-en-de

My Contact

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- 📍 Zürich
- 🌐 [My website](#)

Education Background

- **ETH Zürich**
Invited Visiting Student
Completed in 2023
- **Università degli Studi di Trento**
Msc. in Mathematics for Data Science
Completed in 2023
- **Univeristà degli Studi di Milano-Bicocca**
Bachelor of Mathematics
Completed in 2021

Publications

- [Urban traffic congestion control : A DeePC change](#)

Awards

- **SGA Best Master Thesis Award 2023**



References

- **Prof. Dr. John Lygeros: Full Professor at ETH Automatic Control Laboratory.**
✉ jlygeros@ethz.ch
- **Alberto Padoan: Senior Scientist at the ETH Automatic Control Laboratory.**
✉ apadoan@ethz.ch
- **Carlo Cenedese: postdoctoral researcher at the ETH Automatic Control Laboratory.**
✉ ccenedese@ethz.ch

SKILLS

- **Languages** : Python, R, SQL (Postgres), SQL (Oracle), DAX, Java, Matlab
- **Tools** : Microsoft Azure, Vscode, Github, Gitlab, DBeaver, PowerBI.
- **Fields** : Machine Learning, Deep Learning, Data Analysis, Statistics, Applied Linear Algebra, Optimal Control

Professional Experience

- Research Assistant, ETH Zürich
📅 2023 -Present
Working on data-driven optimal control solutions at the Automatic Control Laboratory (IFA)
- Machine Learning Engineer, Sidera ICTEase
📅 2021 - 2023
IT Company specialized in ERP and CRM Software
 - Automatized 40% of the accountants working using Classifiers
 - Developed an automatic checkout desk with Computer Vision
 - Designed and developed tool to forecast retail sales and automatically plan restock.

Projects

- Novel Optimal Control Algorithms for Real Scale Traffic Control
📅 2023, ETH Zurich
 - **What did I do ?**
 - DeePC is a novel Data-Driven Control Algorithm which showed great results on highly non linear systems, our aim as been to prove that this algorithm can be used to improve CO2 emissions with respect to the state of the art.
 - **How did i do it?**
 - We used a highly detailed simulation of the city of Zurich, fine tuned the algorithms and confronted them on various emission metrics.
 - **What was the Impact?**
 - The algorithm performed greatly and beat the state of the art, this resulted in a paper which will be published this October.
- Automatic Checkout Desk with Computer Vision
📅 2022, Sidera ICTEase
 - **What did I do ?**
 - Schools had a prolonged shortage of employees to manage the mensa, we developed a fully automated checkout desk that uses a camera to identify food items to ease this problem.
 - **How did i do it?**
 - The project had many parts, the main one i worked on was constructing the pipeline that started from the camera image acquisition, extracted the features of the image and through the final classification.
 - **What was the Impact?**
 - The machine has an accuracy of 98% and it is easy enough to be used by children, this solved the initial problem and generated a new asset for the company.