Francesco Lässig

EXPERIENCE

ETH, Zürich — *Research Assistant*

NOVEMBER 2022 - PRESENT

Wrote an original research article based on my master thesis. Currently awaiting feedback from the reviewers at the *Biological Cybernetics* journal.

Unit8, Zürich — *Data Scientist*

APRIL 2020 - FEBRUARY 2022

Developed a significant part of *Darts*, an open source library for time series forecasting, including statistical and deep learning-based forecasting tools. Presented *Darts* at the *EuroPython* 2021 conference and the *PyData Global* 2021 conference. During the time I worked on *Darts*, its GitHub page went from 0 to over 3.3k stars.

Built a ML-based predictive maintenance tool for a Swiss hydro power plant, all the way from exploratory data analysis and model development to backtesting and deployment.

Developed a demand forecasting solution for a Swiss manufacturer of laboratory and industry equipment which improved their existing forecasts by 10% - 50% (depending on the metric).

Co-hosted multiple technical public webinars revolving around topics in data science and machine learning.

Araneum Technologies, Zürich — *Machine Learning Engineer*

SEPTEMBER 2019 - DECEMBER 2019

Devised and built machine learning solutions for small and medium-sized Swiss banks.

ETH, Zürich — *Teaching Assistant for Analysis*

MARCH 2019 - JUNE 2019

Planned and conducted 2 lessons per week where I reviewed material from the lecture, discussed assignments, answered questions and provided additional examples.

EDUCATION

ETH/UZH, Zürich — *MSc in Neural Systems and Computation*

SEPTEMBER 2020 - OCTOBER 2022

Core subjects: deep learning, computational neuroscience, neuroscience.

Developed a novel, bio-inspired continual learning algorithm called *sparse-recurrent DFC* as part of my master thesis, which received the maximum grade. **Showcased poster** about my work at the *AI+X Summit 2022* and **presented it at an *IROS 2022* workshop**.

University of Pennsylvania, Philadelphia — *Computer Science Program*

AUGUST 2018 - DECEMBER 2018

Core subjects: computer science, business.

Received honorable mention for Facebook-sponsored award in a project-based coding competition as part of the NETS 212 course (among top 4 of 54 teams).

SKILLS

General proficiency in programming using Python, Java, C++.

Extensive experience in developing ML solutions in Python and deep learning systems using PyTorch.

Experience in writing scientific articles.

Communication of technical topics to specialized and general audiences.

LANGUAGES

English	Fluent (Grade A in CPE)
German	Fluent
Italian	Conversational

ONLINE PORTFOLIO

flaessig.netlify.app

GITHUB

github.com/pennfranc

CONTACT

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ETH, Zürich — *BSc in Computer Science*

SEPTEMBER 2016 - APRIL 2020

Core subjects: computer science (applied and theoretical), machine learning.

Completed degree with a GPA of 5.36 (out of 6), **received a scholarship** for a selective exchange program to the University of Pennsylvania, **worked as a student assistant** teaching calculus.

EXTRACURRICULARS

ETH/UZH, Zürich - *Qualiaheads Student Club*

JANUARY 2021 - PRESENT

Founded and organized a reading club centered around topics in consciousness science and philosophy.

Conducted interviews with researchers in the field of consciousness science, such as Anil Seth and Pedro A.M. Mediano.

Organized trips to consciousness-related conferences, such as Corticon 2022 and ASSC 2022.

Participated at a week-long workshop centered around the science and philosophy of consciousness organized by the Association for Mathematical Consciousness Science, where I presented a talk about the meta-problem of consciousness.

AWARDS / SCHOLARSHIPS

Received a scholarship by ETH Zürich for a selective exchange program to the University of Pennsylvania

Honorable mention for Facebook-sponsored award in a project-based coding competition as part of the NETS 212 course at the University of Pennsylvania (among top 4 of 54 teams).

PUBLICATIONS

Lässig, Francesco et al. "*Bio-Inspired, Task-Free Continual Learning through Activity Regularization*" *arXiv preprint arXiv:2212.04316* (2022).

Herzen, Julien, Francesco Lässig et al. "Darts: User-friendly modern machine learning for time series." Journal of Machine Learning Research 23, no. 124 (2022): 1-6.

CONFERENCE TALKS, POSTERS

PyData Global 2021 - Presentation of Darts (main speaker)

EuroPython 2021 - Presentation of Darts (second speaker)

IROS 2022 workshop on lifelong learning - Presentation of my master thesis

AI+X Summit 2022 - Poster of my master thesis