

ANDREA COGNOLATO

andrecogno@hotmail.it ♦ [mrandri19.github.io](https://github.com/mrandri19) ♦ linkedin.com/in/andrea-cognolato

EDUCATION

Master of Data Science and Engineering, Politecnico di Torino Sept. 2020 - July 2022
Graduated with 110/110 cum laude.

Erasmus Exchange Program, Aalto University, Finland Sept. 2021 - June 2022
Thesis title: “Learning Individualized Treatment Response Curves with Bayesian Nonparametrics”

Bachelor of Computer Engineering, Politecnico di Torino, Italy Sept. 2017 - July 2020
Graduated with 110/110 (Top 1% in my class), supported by a full scholarship.

WORK EXPERIENCE

Software Engineer Intern, Optiver July 2021 - August 2021

- Optimized, tested, and deployed a batch processing job for the compliance tech team, reducing its runtime by 8x. To achieve this I wrote **high-performance C++** and created **Python bindings**.
- Gave technical and introductory presentations of my work, to my team and company-wide audiences.
- Learned about financial markets, high frequency trading, market making, and option theory.

Software Engineering (freelance), Ufficio.ch March 2020 - Now

- Developed the frontend and backend for an eCommerce platform using **Haskell** and **PureScript**.
- Wrote design docs, collaborated with contractors, maintained legacy open-source libraries.
- Improved latency and operating cost by refactoring parts of the main monolith to **AWS Lambda**.

Machine Learning Research Intern, Politecnico di Torino October 2019 - March 2020

- Worked under prof. Elena Baralis on the **eXplainable AI (XAI)** frameworks LACE and X-PLAIN. This work was **published at SIGMOD20**. Optimized Python code improving runtime by over 50%.

Freelance Software Engineer, Multiple Clients September 2017 - 2019

- Worked in over 10 projects, achieving “Top Rated” status on the Upwork marketplace.

OTHER EXPERIENCES

Blogging (more at [mrandri19.github.io/blog](https://github.com/mrandri19/blog))

Wrote several posts for my blog which reached the front page of Hacker News and Reddit’s /r/programming. Several articles were read by more than 10,000 people and keep generating traffic years later.

Ma chi voto? (Who to vote for?)

Built, for the 2022 Italian general election, a voting compass website that allows users to see how their views align with those of the parties running for election.

Using GCP, it handled half a million users over ten days and a peak of over 200 requests per second.

Open Source (more at github.com/mrandri19)

Wrote and shipped the GTK Linux backend for the Druid UI Framework.

Improved documentation, fixed bugs, and implemented multivariate polynomials for Surrogates.jl.

MALTO (MACHINE Learning at poliTO), Founding Member Sept. 2020 - Now

Co-founded my university’s competitive ML team. Took part in Kaggle TPS, Twitter RecSys 2021.

Citadel Summer Invitational Datathon July 2020

Our team performed data analysis and quantified the effect of 2012 London Olympics on the Growth Boroughs’ housing market using a causal inference method called Synthetic Control.