# ANDREA COGNOLATO

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#### WORK EXPERIENCE

#### Software Engineer/Quantitative developer, Optiver

November 2022 - Now

- · Designed, implemented, and maintained core parts of the data pipelines and research infrastructure.
- · 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 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.

# Software Engineer (part-time), Uffizio.ch

March 2020 - June 2022

- · 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.

# **EDUCATION**

Master of Data Science and Engineering, Politecnico di Torino Graduated with 110/110 cum laude.

Sept. 2020 - July 2022

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 scolarship.

# OTHER EXPERIENCES

# Blogging

(more at mrandri19.github.io/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)

Open source contributor since 2015 on projecs such as Druid UI, Surrogates.jl, and MindsDB Lightwood.

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.