# ANDREA COGNOLATO

andrecogno@hotmail.it ⋄ mrandri19.github.io ⋄ linkedin.com/in/andrea-cognolato

## EDUCATION

**Master of Data Science and Engineering**, Politecnico di Torino    Sept. 2020 - Exp. 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.

## 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), Uffizio.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)
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 that 10,000 people and keep generating traffic years later.

**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.

## AWARDS

**"Giovani Talenti" Program**, Politecnico di Torino    Sept. 2017 - June 2020
**"Alta Scuola Politecnica" Program** (1st year), Politecnico di Torino    Nov. 2020 - Sept. 2021
**1st place - Provincial Informatics Olympiad**    Fall 2016