

Mathieu Molina

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Experience

PhD Student, Inria FAIRPLAY/ CREST ENSAE – Palaiseau, France Jan 2022 – Present

- Research related to group-fairness, online algorithms and auctions. (see mathieu-molina.github.io)
- Led the logistical and scientific organization of 3 days team seminar near Caen
- Supervised intern on a prophet inequality project, teaching assistant for the Data Science course at Mines Paris

Research intern, Inria POLARIS – Grenoble, France Apr 2021 – Sept 2021

- Trained a fair classifier with a high number of protected subgroups, and analyzed possible trade offs of utility and fairness between different notions of fairness
- Research related to Supervised Learning fairness : experimental exploration, survey of the literature, statistical modelization

Program Manager Intern, Amazon EU Private brands – Luxembourg Apr 2020 – Aug 2020

- Prevented missed sales by addressing out of stock issues: built automatic weekly forecast for inventory weeks of cover, pulling relevant data through SQL queries, preemptively filling orders when items were predicted to be missing
- Increased revenue growth: used analytics to compare market and company products trend in views and purchase numbers, suggested specific area for increased marketing or price changes
- Reduced losses due to logistic issues: monitored sales profit and holding costs anomalies, deep dived to find root issue, and proposed actionable change to reduce deficit

Research intern, Boston Children's Hospital/ Harvard University – Boston, USA Aug 2019 – Jan 2020

- Collaborated with healthcare experts to align goals on common research project, advised on the capacities and limitations of machine learning tools
- Used Pandas to process messy data, conducted thorough data cleaning, with advice from physicians, and engineered features to improve classifier performance
- Worked on state level influenza forecasting (used later for COVID predictions). Additionally, developed predictions for blood potassium levels in infants with data from intensive care unit aiming to minimize blood draws for testing

Education

Mines Paris – Engineering degree, geostatistics and applied probability specialization Sept 2017 – Sept 2021

PSL University – Artificial Intelligence, Systems, Data Master degree Sept 2020 – Sept 2021

Tokyo Institute of Technology – Exchange semester, AI and applied mathematics Sept 2018 – Feb 2019

Lycée Louis le Grand / Henri IV – CPGE MPSI/PSI* Sept 2015 – Sept 2017

Skills

Programming: Python (SciPy-Pandas-Sklearn-Keras), Java, R, SQL

Languages: English (Toefl IBT 112/120), Chinese, Japanese