# Kayané ROBACH

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Amsterdam, Netherlands

Born the 3rd of August 1999

#### **EDUCATION**

#### **AMSTERDAM UMC / VUMC, THE NETHERLANDS**

#### 2022 - 2026 PhD research in Causal Record Linkage

Development of new statistical methods to estimate causal effects based on multiple data sets. My research is specifically focused on the development of Bayesian approaches for survival analysis at the interface of causal inference and record linkage.

#### **ENS PARIS SACLAY, FRANCE**

#### 2021 - 2022 Master 2 MVA (Mathématiques, Vision, Apprentissage)

Topological data analysis, Object recognition and computer vision, Responsible Machine Learning, Computational statistics, Geometry of shape space, Probabilistic graphical models, Advanced learning for text and graph data, Kernel methods, Random Matrix Theory, Information and complexity, Kernel methods for Machine Learning

#### **TOULOUSE SCHOOL OF ECONOMICS, FRANCE**

#### 2020 - 2021 Master 1 in Mathematics and Economic Decision

Game and equilibria, Probability modelling, Strategic and dynamic optimization, Time series, Martingales theory, Advanced functional analysis

## 2019 - 2022 Economist - Statistician magister

Machine Learning, Stochastic simulation, Markov chains and applications, Data analysis, Programming, Statistics, Optimization for big data

# 2017 - 2020 Double degree in Economics, and in Mathematics and Computer Science applied to human and social sciences

Statistics, Measure theory and probability, Algebra, Algorithmic, Micro and Macro Economics, Analysis and optimization, econometrics

# **EXPERIENCE**

### 2024; FIETSENWERKPLAATS SMERIG; AMSTERDAM, THE NETHERLANDS

Make and repair bicycles. Learn to assemble and disassemble bikes, wheels, internal hub mechanism.

### APRIL - SEPTEMBER 2022; RESEARCH INTERNSHIP, LIGM; PARIS, FRANCE

Research project on the feasibility and stability properties of the equilibria in Lotka Volterra models for theoretical ecology in large dimension. Study of the phase transition phenomena for the feasibility, Volterra Lyapunov stability and P-matrix properties in the context of random matrices and their asymptotic spectral properties.

## APRIL - AUGUST 2021; DATA SCIENTIST, 55; PARIS, FRANCE

Research project in cognitive science, focused on decision-making processes concerning the acceptance of website cookies. The project included two experiments: AB-Tests to identify the impact of visual features on marketing indicators and a survey to evaluate the visual influence of consent notice on cognitive mechanisms.

## MAY - AUGUST 2020; DATA SCIENTIST, EVIDENCEB; PARIS, FRANCE

Data Science project on a new interactive online learning tool using AI at the service of school curriculums. Data analysis, implementation of clustering and recommendation algorithms (collaborative filtering, spectral classification, k-means, ...), creation of a python package.

## **SKILLS**

Programming proficiency Python, R, Cpp, SAS, STATA and SQL <a href="https://kayanerobach.github.io/">https://kayanerobach.github.io/</a>
French (native), English (C1), Spanish (B2), Dutch (A1)

Driving License (B)