



Antoine Carnec

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Education

Barcelona School of Economics

August 2021 - August 2023

Msc Data Science Methodology

- Grade: 8.47/10
- Relevant Subjects taken: Statistical Modelling; Optimization; Data Warehousing; Computational Machine Learning; Probabilistic Machine Learning; Machine Learning Theory.
- I achieved a grade of 9.2 on my master's project, which focused on developing and implementing a novel computational algorithm in Python to perform Bayesian Variable Selection. Supervised by David Rossell and Jack Jewson.

Trinity College Dublin

September 2017 – May 2021

B.A Moderatorship in Economics (Major) and Philosophy (Minor)

- Grade: First Class Honours.
- Focus on quantitative and technical classes: Mathematical Economics; Quantitative Methods; Econometrics; Game Theory; Economic Theory; Logic; Metaphysics.

Technical Skills

Languages: Python, R, SQL, Julia, Stan

Relevant Libraries: Pandas, Numpy, Sklearn, Matplotlib, Tidyverse

Software: Linux, Docker, Airflow, Bash, Stata

Version Control: Git, Github

Topics in ML: Bayesian Modelling, Time Series Analysis, Bayesian Hypothesis Testing, Hierarchical Models, Sampling Methods, Probabilistic Programming, Regression Variable Selection

Professional Experience





Economics Department, Trinity College Dublin

June 2020

Research Internship for Professor Andrea Guariso

- Data cleaning and analysis on regional Ugandan household data using Python and Stata.
- My work on merging two disparate datasets was valuable to allow the economists to properly supervise and extend their experiment.
- Responsible for assuring proper randomisation of sample for Randomised Control Trial.
- Left careful documentation of my work after I finished, to ensure reproducibility of the analysis.

Sample Academic Projects

- Markov chain model of determinants of mental health in aging Irish population using TILDA dataset
- Static bayesian game of socialising under the risk of an infectious disease 
- Simulation study of frequentist vs bayesian unit root hypothesis testing 
- Prediction of live fuel moisture content in Southern California using geospatial, weather and plant trait data 
- Sequential monte carlo for approximate variable selection in generalized linear models 


Volunteering Experience

Trinity College Dublin Volleyball Club

2017-2021

- Treasurer of the club from 2019-2021. Tasked with tracking Club expenses and applying for a new Budget every season.
- Acted as fundraising officer from 2017-2019. Raised €1048 through organizing fundraising events.

Open Source Software

- I am contributing to **dream2nix** , a framework to produce reproducible software built in any ecosystem.
- Working on improving documentation, and improving the internal API's type checking.

Language Skills and Interests

Languages: English (fluent) ; French (fluent) ; Spanish (conversational)

Interests: Bayesian Statistics; Open Source software; Linux; Nix package manager and ecosystem; Inline Skating; Flamenco Guitar

Bike Touring: Helped raise \$1030 for children in Yemen (Unicef), through sponsorships for a cycling trip across the west coast of Ireland with 5 friends in July 2020.

Volleyball: Captain of the TCD Student Team for the 2018/2019 season ; Winners of Volleyball Ireland SSI (Student) League 2020.