THIBAULT RANDRIANARISOA

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EDUCATION

Phd in Statistics 2019 - 2022 (Expected)
Under the supervision of Pr. Ismaël Castillo
Sorbonne Université, LPSM, Paris (France)
Title: Contributions to the theoretical analysis of statistical learning and uncertainty quantification methods
Keywords: Bayesian nonparametrics, Tree-based methods, Uncertainty Quantification, Wasserstein distance, Gaussian processes

Msc in Statistics and Machine Learning 2018 - 2019
Université Paris-Saclay, Paris (France)
Relevant Coursework: Bayesian nonparametrics, Statistical Learning, High-dimensional Statistics, Machine learning and Forecasting Project. (GPA 4/4)

Engineering Degree,
major in Statistics and Economics 2015 - 2019
ENSAE Paris, Paris (France)
Relevant Coursework: Machine learning and datamining, Simulation and Monte Carlo Methods, Linear Time Series, Bayesian Statistics, High-dimensional statistics, Stochastic Processes, Legal Issues in Big Data. (GPA 4/4)

PUBLICATIONS

1. Deep Gaussian Processes: scaling for adaptation to smoothness and structure. With Ismaël Castillo. *In preparation.*
2. On Adaptive Confidence Sets for the Wasserstein Distances. With Neil Deo. To appear in *Bernoulli*, 2022.
3. Optional Pólya trees: posterior rates and uncertainty quantification. With Ismaël Castillo. Currently under review at *Electronic Journal of Statistics*, 2022.
4. Smoothing and adaptation of shifted Pólya Tree ensembles. *Bernoulli*, 2022.

INVITED TALKS

rjs2022: 9ème Rencontre des Jeunes Statisticien-ne·s April 2022
On Adaptive Confidence Sets for the Wasserstein Distances
CREST-ENSAE Statistics, Econometrics and Machine Learning seminar December 2021
On Adaptive Confidence Sets for the Wasserstein Distances
Journées MAS 2020 August 2021
Optional Pólya trees: vitesses de contraction de la loi a posteriori et quantification de l'erreur
2021 World Meeting of the International Society for Bayesian Analysis June 2021
Smoothing and adaptation of shifted Pólya Tree ensembles
Conference on Mathematical and Statistical Challenges in Uncertainty Quantification, Cambridge University July 2020
A toy model of Polya tree ensemble: smoothing and adaptation

TEACHING

1. **2020-2021 academic year**: Teaching assistant for courses on statistical modelling, computational statistics and numerical probabilities.
2. **2019-2020 academic year**: Teaching assistant for courses on probability theory, introductory statistics, computational statistics and numerical probabilities.

WORK EXPERIENCE

Machine Learning Research Intern, *Walnut Algorithms* Mar 2018 - Sep 2018

· Studied the effect of macroeconomic events on the firm trading performances.

· Designing of trading models (Straddle trades, Pairs Trading).

Software Engineering Intern, *Spinergie* Sep 2017 - Feb 2018

· Built a large-scale crawler/scraper in Python, applied over 1500+ websites.

· Developed classification algorithms aimed at identifying relevant pieces of information on these websites.

Biostatistician Intern, *SERVIER (I.R.I.S.)* June 2016 - Sep 2016

· Made a review of statistical methods associated with interim analyses of clinical trials.

SKILLS AND INTERESTS

Languages	French (native), English (professional working proficiency, TOEIC: 955/990, TOEFL iBT: 103/120), German (intermediary)
Software skills	Python, R, SQL (MySQL), NoSQL (MongoDB), Latex, Git, Shell scripting, Linux, MacOS
Miscellaneous	Basketball (2013 Alsace Regional Champions, 2015 *Coupe de l'X* Winners), Guitar