

Maxime Cauchois

Ph.D Candidate, Statistics, Stanford University

January 22nd, 1995, France

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EDUCATION	Stanford University , Stanford, CA <i>Ph.D candidate</i> , Department of Statistics (GPA 4.1/4.0) <i>Advisor:</i> Prof. John Duchi	Sep. 2017 - Jun. 2022 (expected)
	Ecole polytechnique , Palaiseau, France <i>Master of Science & Engineering</i> (2016-2017) (GPA 3.97/4) <i>B.Sc. in Applied Mathematics</i> (2014-2016)	Sep. 2014 - Jul. 2017
PROFESSIONAL EXPERIENCE	Two Sigma , New York City, NY Quantitative Modeling Intern <ul style="list-style-type: none">Developed index events-based portfolio strategies in the <i>Events & Flows</i> team Google , Mountain View, CA Data Scientist Intern at <i>Google Play Analytics</i> <ul style="list-style-type: none">Investigated new semi-supervised methods for the detection of abusive apps on the Play Store Bloomberg LP , New York City, NY Quant Analyst Intern at <i>Bloomberg Quantitative Research Team</i> <ul style="list-style-type: none">Developed path-dependent volatility models calibrated to both S&P and VIX smile. Societe Generale , Paris, France Intern in a structuring team <ul style="list-style-type: none">Developed and backtested portfolio strategies	Jun. 2021 - Aug. 2021 Jun. 2019 - Sep. 2019 Mar. 2017 - Aug. 2017 Jun. 2016 - Aug. 2016
PUBLICATIONS	<ol style="list-style-type: none">Alnur Ali, Maxime Cauchois, John Duchi. Slice-Driven Continuous Monitoring of Statistical Models: Localization, Detection, and Retraining. <i>In progress</i>, 2021.Maxime Cauchois, Suyash Gupta, Alnur Ali, John Duchi. Conformal prediction with partially labeled data. <i>In progress</i>, 2021.Maxime Cauchois, Suyash Gupta, Alnur Ali, John Duchi. Robust Validation: Confident Predictions Even When Distributions Shift. <i>arXiv:2008.04267 [stat.ML]</i>, Major Revision at JASA, 2020.Maxime Cauchois, Suyash Gupta, John Duchi. Knowing what you know: valid and validated confidence sets in multiclass and multilabel prediction. <i>Journal of Machine Learning Research</i>, 22(81):1–42, 2021.	
RESEARCH INTERESTS	<ul style="list-style-type: none">◇ Robustness and distribution shifts in Machine Learning◇ Model validation and uncertainty quantification◇ Statistics and Privacy◇ Optimization	
DISTINCTIONS	<ul style="list-style-type: none">◇ Ranked 2nd at Ecole polytechnique exit ranking, Palaiseau◇ Prize of the Financial Risk Chair for the internship at Bloomberg	Jun. 2017 Sep. 2017

TEACHING
EXPERIENCE

Instructor, Stanford University

- STATS 50: Mathematics of Sports Spring 2019
- STATS 302: Qualifying Exams Workshop Summer 2020

Teaching Assistant, Stanford University

- STATS 116: Theory of Probability Fall 2017
- STATS 101: Data Science Summer 2018
- STATS 310A: Theory of Probability I Fall 2018
- STATS 322: Gaussian Sequence Models Fall 2019
- EE 364A: Convex Optimization Winter 2020
- STATS 361: Causal Inference Spring 2020
- STATS 300A: Theory of Statistics I Fall 2020
- STATS 300B: Theory of Statistics II Winter 2021
- STATS 300C: Theory of Statistics III Spring 2021

PROGRAMMING
LANGUAGES

Python (Tensorflow, PyTorch, Numpy, Scikit-Learn, Pandas), C++, R, MATLAB, SQL
English (Bilingual), French (Native), Spanish (Advanced)