

Alberto Caron

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EDUCATION

- University College London** Sept 2019 - June 2023
Ph.D. in Statistics & Machine Learning
Dissertation: *Bayesian Learning in the Counterfactual World*
- Bocconi University, Milan** Sept 2015 - Dec 2017
M.Sc. in Statistics & Econometrics
Dissertation: *Mixed-Data Sampling Bayesian Vector Autoregression*
Overall GPA: 28.43 / 30
- Bocconi University, Milan** Sept 2012 - Sept 2015
B.Sc. in Economics
Exchange Program at University of Gothenburg
Overall GPA: 27.16 / 30

EXPERIENCE

- The Alan Turing Institute** Apr 2023 - Present
Research Associate
London, UK
- Working on Causality and Bayesian uncertainty quantification methods in Sequential Experimental Design and Model-Based Reinforcement Learning.
- University College London** Sept 2019 - Mar 2023
Teaching Assistant
London, UK
- Tutorial leader for the following Dept of Statistics modules: STAT0001 (Economics), STAT0006 (Linear Models), STAT0007 (Stochastic Processes).
- The World Bank Group** Sept 2022 - Jan 2023
Short-Term Researcher
Washington DC, US (remote)
- Short-term project on statistical modelling of elasticity of energy demand.
- The Alan Turing Institute** Jan 2022 - Jul 2022
Enrichment PhD Student
London, UK
- Project on Causal Effects Learning under Network Interference, funded by the Enrichment Scheme Award.
- University College London** Sept 2018 - Sept 2019
Research Assistant / Data Scientist
London, UK
- Research and Consultancy projects at the Bartlett School of Environment, Energy & Resources, commissioned by the government Dept of Business, Energy & Industrial Strategy.
- Bocconi University** Mar 2018 - Sept 2018
Research Assistant
Milan, Italy
- Web scraping and data analysis with Python.

- Data cleaning and analysis of high-frequency financial data.

PUBLICATIONS

- **Caron, A.**, Hicks, C. & Mavroudis, V., *The Whys and Hows of Active Exploration in Model-Based Reinforcement Learning*, 2024, *17th European Workshop on Reinforcement Learning*
- Thompson, I., S., **Caron, A.**, Hicks, C. & Mavroudis, V., *Entity-based Reinforcement Learning for Autonomous Cyber Defence*, 2024, *ACM International Workshop on Autonomous Cybersecurity*
- **Caron, A.**, Hicks, C. & Mavroudis, V., *A View on Out-of-Distribution Identification from a Statistical Testing Theory Perspective*, 2024, *Trustworthy AI Workshop, IJCAI 2024*
- Liang, X., **Caron, A.**, Livingstone, S. & Griffin, J., *Structure Learning with Adaptive Random Neighborhood Informed MCMC*, 2023, *37th Conference on Neural Information Processing System*
- **Caron, A.**, Baio, G. & Manolopoulou, I., *Counterfactual Learning with Multioutput Deep Kernels*, 2022, *Transaction on Machine Learning Research, JMLR*
- **Caron, A.**, Baio, G. & Manolopoulou, I., *Interpretable Deep Counterfactual Learning for Moderation Effects*, 2022, *2nd Interpretable Machine Learning for Healthcare Workshop, ICML*
- **Caron, A.**, Baio, G. & Manolopoulou, I., *Shrinkage Bayesian Causal Forests for Heterogeneous Treatment Effects Estimation*, 2022, *Journal of Computational & Graphical Statistics*
- **Caron, A.**, Baio, G. & Manolopoulou, I., *Estimating Individual Treatment Effects using Non-Parametric Regression Models: a Review*, 2022, *Journal of the Royal Statistical Society, Series A*
- Zhu, H., Liu, X., **Caron, A.**, Manolopoulou, I., Flaxman, S. & Briol F. X., *Contributed Discussion of "Bayesian Regression Tree Models for Causal Inference: Regularization, Confounding, and Heterogeneous Effects"*, 2020, *"Bayesian Analysis"*, 15(3), discussion

WORK IN PROGRESS

- **Caron, A.**, Hicks, C. & Mavroudis, V., *Robust Causal Model-Based Reinforcement Learning*, *Work In Progress*
- **Caron, A.**, Hicks, C. & Mavroudis, V., *Sample Efficient Exploration in Model-Based Policy Optimization Algorithms*, *Work In Progress*

AWARDS & CERTIFICATES

Mar 2022	Junior Travel Award, ISBA 2022 World Meeting
Jan 2022	Costas Goutis Prize for best PhD Upgrade Viva, UCL, Dept of Statistical Sciences
Sept 2021	Enrichment Students Award, The Alan Turing Institute
Jul 2021	11 th Lisbon Machine Learning School, LxMLS 2021
Sept 2019	PhD Studentship, UCL, Dept of Statistical Sciences
Sept 2018	<i>Lino Venini Award, BPN Foundation, Novara</i>
Jan 2015	<i>Erasmus+ Scholarship</i>

TALKS & REVIEWING ACTIVITY

Dec 2023 Poster, NEURIPS 2023
Nov 2023 Reviewer, AISTATS 2024
Nov 2023 Invited Talk, Deepmind/ELLIS CSML Seminars
Jul 2023 Poster, Greek Stochastics ν , Naxos
Nov 2022 Reviewer, AISTATS 2023
Aug 2022 Poster, Greek Stochastics μ , Corfù
Aug 2022 Contributed Talk, Greek Stochastics μ , Corfù
June 2022 Contributed Talk, ISBA World Meeting 2022, Montreal
Mar 2022 UCL, Dept Statistical Science, PhD Seminars
Apr 2021 UCL, Priment Clinical Trials Unit Statistical Seminar
Apr 2020 UCL, Dept Statistical Science, Computational Statistics Group

SOFTWARE & LANGUAGES

Software R, Python, LaTeX, SQL, C++
Languages Italian (Native), English, Spanish, French