

Saul Toscano-Palmerin

| | | |
|------------------------|---|---|
| CONTACT INFORMATION | 265 Rhodes Hall Cornell University Ithaca, NY 14853 | (607)319-3123 st684@cornell.edu http://toscanosaul.github.io/saul/ |
| RESEARCH INTERESTS | Simulation optimization, Bayesian optimization, optimal learning, machine learning, sequential decision-making and transportation systems. | |
| EDUCATION | Cornell University, USA Ph.D. in Operations Research and Information Engineering, GPA: 4.2/4.3, expected December 2019 <ul style="list-style-type: none">• Advised by Peter I. Frazier• Minors: Computer Science and Statistics CIMAT-Center for Mathematical Research, Mexico B.A. in Mathematics, GPA: 9.71/10, June 2013 <ul style="list-style-type: none">• Highest GPA of the class 2008-2013• Excellence Fellowship awarded by the Mexican government | |
| INDUSTRY EXPERIENCE | Two Sigma, USA Quantitative Researcher Intern, May 2019 - August 2019 <ul style="list-style-type: none">• Market impact simulator based on the latent order book model.• Optimal execution with forecasts and the linear propagator model using dynamic programming. Uber, USA Data Scientist Intern, June 2016 - June 2017 <ul style="list-style-type: none">• Lead developer for a major redesign of Uber's pricing system, route-based pricing https://marketplace.uber.com/pricing/route-based-pricing | |
| PAPERS | S. Toscano-Palmerin and P.I. Frazier, "Bayesian Optimization with Expensive Integrands", 2018. Submitted to SIAM Journal on Optimization. https://arxiv.org/abs/1803.08661 S. Toscano-Palmerin and P.I. Frazier, "Effort Allocation and Statistical Inference for 1-dimensional Multistart Stochastic Gradient Descent", <i>Winter Simulation Conference</i> , 2018. J. Wu, S. Toscano-Palmerin, P. I. Frazier and A. G. Wilson, "Practical Multi-fidelity Bayesian Optimization for Hyperparameter Tuning", <i>Conference on Uncertainty in Artificial Intelligence</i> , 2019. https://arxiv.org/pdf/1903.04703.pdf S. Toscano-Palmerin and P.I. Frazier, "Stratified Bayesian Optimization", <i>Proceedings of the 12th International Conference on Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing (MCQMC)</i> , 2017. https://arxiv.org/abs/1602.02338 S. Toscano-Palmerin and P.I. Frazier, "Asymptotic Validity of the Bayes-Inspired Indifference Zone Procedure: the Non-Normal Known Variance Case", <i>Winter Simulation</i> | |

Conference, 2015. <http://arxiv.org/pdf/1508.07720.pdf>

TEACHING

Cornell University, Instructor

- ❑ Big Data Technologies (ORIE 5270), Spring 2018, Fall 2018, Masters level.
 - Course rating: 3.7/5.0; Mean course rating (College of Engineering, Cornell University): 3.63/5.0
 - Topics: Statistical and software tools for data mining of massive datasets, graphical display, machine learning, and natural language processing.
 - <https://toscanosaul.github.io/saul/teaching/orie5270/>
- ❑ Computational Methods in Operations Research (ORIE 6125), Spring 2018, PhD level.
 - Topics: Computational tools to perform research in operations research and related fields.
 - <https://toscanosaul.github.io/saul/teaching/orie6125/>

AWARDS

2014–2015 Mexican Government Fellowship
2013–2014 McMullen Fellowship

SOFTWARE

Bayesian Global Optimization (BGO) Package

Python-based Bayesian global optimization software.

https://github.com/toscanosaul/stratified_bayesian_optimization

New York City's Citi Bike System Simulation

Python-based queuing simulation based on New York City's Citi Bike system.

<https://github.com/toscanosaul/BGO/tree/master/CitiBike>

RELEVANT SKILLS

Development: Python, Java, R, C, C++, Matlab, PySpark/MLlib, SQL
Languages: English, Spanish.