Saul Toscano-Palmerin

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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: 4.191/4.3, expected May 2018

- 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

- Highest GPA of the class 2008-2013
- Excellence Fellowship awarded by the Mexican government

INDUSTRY EXPERIENCE

Uber, USA

Data Scientist Intern, June 2016 - June 2017

- Route-based pricing for uberX and uberPOOL
- Skills: Optimization and statistical methods, machine learning algorithms, design of experiments, production code

Papers

- S. Toscano-Palmerin and P.I. Frazier, "Asymptotic Validity of the Bayes-Inspired Indifference Zone Procedure: the Non-Normal Known Variance Case", Winter Simulation Conference, 2015. http://arxiv.org/pdf/1508.07720.pdf
- S. Toscano-Palmerin and P.I. Frazier, "Stratified Bayesian Optimization", Proceedings of the 12th International Conference on Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing (MCQMC), 2017. https://arxiv.org/abs/1602.02338

WORK IN PROGRESS

"Bayesian Optimization of Integrated Expensive Noisy Functions for Multi-Task Learning, Optimization via Simulation, and Random Environmental Conditions" with P.I. Frazier.

"Continuous-Fidelity Bayesian Optimization with Trace Observations" with J. Wu, P.I. Frazier and A. G. Wilson.

Awards

2014–2015 Mexican Government Fellowship 2013–2014 McMullen Fellowship

Teaching

Cornell University, Instructor

• Big Data Technologies (ORIE 5270), Spring 2018, Masters level. Topics: Statistical and software tools for data mining of massive datasets, graphical display, and machine learning.

level. Topics: Computational tools to perform research in operations research and related fields. 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 GRADUATE ☐ Machine Learning ☐ Combinatorial Optimization Coursework ☐ Statistical Principles ☐ Mathematical Programming I and II □ Bayesian Statistics □ Parallel Computing □ Simulation ☐ Asset Pricing $\hfill \square$ Applied Stochastic Processes Python, Java, R, C, C++, Matlab, Hadoop/Hive/Spark/PySpark/MLlib, SQL Development: Relevant Languages: English, Spanish. SKILLS

• Computational Methods in Operations Research (ORIE 6125), Spring 2018, PhD