## Saul Toscano-Palmerin

CONTACT Information 265 Rhodes Hall Cornell University Ithaca, NY 14853

st684@cornell.edu http://toscanosaul.github.io/saul/

(607)319-3123

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 2019

- 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, "Bayesian Optimization with Expensive Integrands", 2018. Submitted. 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", Winter Simulation Conference, 2018.
- J. Wu, S. Toscano-Palmerin, P. I. Frazier and A. G. Wilson, "Continuous-Fidelity Bayesian Optimization with Trace Observations", 2018. Submitted.
- 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
- 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

#### Teaching

### Cornell University, Instructor

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

level. Topics: Computational tools to perform research in operations research and related fields. 2014 - 2015Mexican Government Fellowship AWARDS 2013 - 2014McMullen 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 GRADUATE ☐ Applied Stochastic Processes ☐ Machine Learning Coursework  $\hfill \square$  Statistical Principles ☐ Advanced Machine Learning □ Bayesian Statistics □ Parallel Computing □ Simulation Python, Java, R, C, C++, Matlab, PySpark/MLlib, SQL Development: Relevant Languages: English, Spanish. Skills

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