

Adrian Rivera Cardoso

CONTACT INFORMATION	Phone: (512)-201-0550 Address: 401 17th St. NW Apt. 4409 Atlanta GA. 30363 Email: adrian.riv@gatech.edu Website: www.adrianriv.com Linkedin: www.linkedin.com/in/adrianriv Github: https://github.com/adrianriv
RESEARCH INTERESTS	Online (Machine) Learning, Problems with Bandit Feedback, Reinforcement Learning, Game Theory, Deep Learning (GANs), Convex and Nonconvex Optimization, Stochastic Optimization, Differential Privacy.
EDUCATION	Georgia Institute of Technology , Atlanta, GA. Aug. 2015 - Dec. 2019 Ph.D. Operations Research, Minor in Machine Learning and Quantitative Finance. <ul style="list-style-type: none">Graduate Coursework: Reinforcement Learning, Machine Learning for Trading, Advanced Nonlinear and Integer Optimization, Stochastic Programming, Simulation, Computational Finance, Stochastic Processes I and II M.S. Operations Research Aug. 2015 - May 2017 The University of Texas at Austin , Austin, TX B.S. Mechanical Engineering, B.A. Economics. Aug. 2012 - Aug. 2015
EXPERIENCE	Research Assistant, Georgia Institute of Technology Fall 2016 - present My research focuses on sequential decision making in unknown and non-stationary environments. I have worked on problems related to Reinforcement Learning, Multi Armed Bandits, and Online Learning. I have also explored connections with Generative Adversarial Networks and Game Theory. My research has been published in top Machine Learning venues. I have been fortunate enough to be advised by Huan Xu and He Wang, I have also collaborated with Jacob Abernethy and Rachel Cummings. Data Scientist (Intern), Roadie Inc. May-August 2018, May-August 2019 Roadie is a platform for delivery of packages that uses crowdsourced drivers. During my internships I have helped with the development of algorithms that: notify drivers of packages they might be interested in, dynamically adjust the price of packages, and find good matches between packages and drivers. I have helped with the design, implementation, and testing of the algorithms. I have more than 6000+ lines of code in production.
PUBLICATIONS	<ol style="list-style-type: none">Cardoso, A. R. "Preventing Mode Collapse in Generative Adversarial Networks (GANs) via Iterate Averaging". In progress.Cardoso, A. R., Wang H. and Xu, H. "Large Scale Markov Decision Processes with Adversarial Rewards". Accepted at <i>Neural Information Processing Systems (NeurIPS)</i>, 2019.Cardoso, A. R., Abernethy J, Wang H. and Xu, H. "Competing Against Equilibria in Zero-Sum Games with Evolving Payoffs". In <i>Proceedings of the International Conference on Machine Learning (ICML)</i>, 2019.Cardoso, A. R., Wang H. and Xu, H. "The Online Saddle Point Problem: Applications to Online Convex Optimization with Knapsacks". Under revision at <i>Mathematics of Operations Research</i>.

5. **Cardoso, A. R.**, Xu, H. “Risk-Averse Stochastic Convex Bandit”. In *Proceedings of the 22nd International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2019.
6. **Cardoso, A. R.**, Cummings, R. “Differentially Private Online Submodular Minimization”. In *Proceedings of the 22nd International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2019.

TEACHING EXPERIENCE **Teaching Assistant, Georgia Institute of Technology** Spring 2016 - Fall 2017

- Linear Optimization
- Advanced Optimization and Convexity
- Operations Research for Supply Chain
- Regression Analysis

CODING SKILLS

- Python and its libraries: pandas, numpy, scikit-learn, Gurobi, cvxpy, NetworkX, and scipy.
- Tensorflow
- SQL: Postgres and PostGIS.
- Git/Github

CODING PROJECTS

- Preventing Mode Collapse in Generative Adversarial Networks (GANs) via Iterate Averaging. In Python and TensorFlow.
- Teaching Robots How to Walk Via Imitation Learning. In Python and TensorFlow.
- An Algorithm for Online Optimization Inspired On Honey Bees. In Python.

AWARDS

- Research Fellowship, Algorithms & Randomness Center Spring 2018
- Scholarship for Graduate Studies, CONACYT (Mexican NSF) 2015-2016
- E.D. Farmer Fellowship, The University of Texas 2012-2015

SERVICE

- Reviewer for: AISTATS 2020, ICML 2020
- Co-organizer of the weekly ISYE student seminar Jan - Dec 2018
- Member of the Graduate Student Advisory Committee Jan 2016 - Dec 2018

PRESENTATIONS

Conferences

- Competing Against Equilibria in Zero-Sum Games with Evolving Payoffs, at ICML, Long Beach, CA June 2019
- Risk-Averse Stochastic Convex Bandit, at AISTATS, Japan Apr 2019
- Differentially Private Online Submodular, at AISTATS, Japan Apr 2019

Georgia Institute of Technology

- A Quick Tutorial on Online Learning, Sept 2018
- Differentially Private Online Submodular Optimization Dec 2017

REFERENCES

Xu, Huan (Ph.D. Advisor)
 Assistant Professor, Phone: +1(404)-385-5385
 Industrial and Systems Engineering E-mail: huan.xu@isye.gatech.edu
 Georgia Institute of Technology

Wang, He (Ph.D. Advisor)
 Assistant Professor, Phone: +1(404)-385-4791
 Industrial and Systems Engineering E-mail: he.wang@isye.gatech.edu
 Georgia Institute of Technology