Paula Nicoleta Gradu

CONTACT

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Berkeley, CA 94709

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https://paula-gradu.github.io/

EDUCATION

PhD in Computer Science — Aug 2021 — present
University of California, Berkeley, Berkeley, CA.

Advisors Ben Recht, Michael Jordan

Bachelor of Arts — Sep 2017 — May 2021
Princeton University, Princeton, NJ

Major Mathematics

Certificates Statistics and Machine Learning *(equivalent to minor program)*
Applications of Computing *(equivalent to Computer Science minor)*
Applied and Computational Mathematics

Awards
The Middleton Miller '29 Prize 2021
(awarded for the best independent work in mathematics)
The Andrew H. Brown Prize 2020
(awarded to the top 2-4 juniors in the Mathematics department)
The Shapiro Prize for Academic Excellence 2018

PUBLICATIONS

"Projection-free Adaptive Regret with Membership Oracles." Zhou Lu, Nataly Brukhim, Paula Gradu, Elad Hazan. *Conference on Algorithmic Learning Theory (ALT)*. 2023.

"Lyapunov Density Models: Constraining Distribution Shift in Learning-Based Control." Katie Kang, Paula Gradu, Jason Choi, Michael Janner, Claire Tomlin, Sergey Levine. *International Conference on Machine Learning (ICML)*. 2022.

"Online Control of Unknown Time-Varying Dynamical Systems." Edgar Minasyan, Paula Gradu, Max Simchowitz, Elad Hazan. *Neural Information Processing Systems (NeurIPS)*. 2021.

"Adaptive Regret for Control of Time-Varying Dynamics." Paula Gradu, Elad Hazan, Edgar Minasyan. *Conference on Learning for Dynamics and Control (L4DC)*. 2023.

"Non-Stochastic Control with Bandit Feedback." Paula Gradu, John Hallman, Elad Hazan. *Neural Information Processing Systems (NeurIPS)*. 2020.

"SyntaxNet for Romanian: Results and Potential." Paula Gradu, Radu Ion. *International Conference Linguistic Resources and Tools for Processing the Romanian Language*. 2016.

PREPRINTS

"Online Control For Adaptive Tapering Of Medications." Paula Gradu, Ben Recht. Accepted to the 2023 *IEEE Conference on Decision and Control*.

"CLIP-OGD: An Experimental Design for Adaptive Neyman Allocation in Sequential Experiments." Jessica Dai, Paula Gradu, Chris Harshaw. Under review at *Neural Information Processing Systems*. 2023.

"Valid Inference After Causal Discovery." Paula Gradu*, Tijana Zrnic*, Yixin Wang, Michael Jordan. Under review at the *Journal of the American Statistical Association*.

WORKSHOP PAPERS

"Machine Learning for Mechanical Ventilation Control." Daniel Suo, Naman Agarwal, Wenhan Xia, Xinyi Chen, Udaya Ghai, Alexander Yu, Paula Gradu, Karan Singh, Cyril Zhang, Edgar Minasyan, Julienne LaChance, Tom Zajdel, Manuel Schottdorf, Daniel Cohen, Elad Hazan. *Machine Learning for Health (ML4H) Symposium*. 2021.

"DELUCA — A Differentiable Control Library: Environments, Methods, and Benchmarking." Paula Gradu*, John Hallman*, Daniel Suo*, Alex Yu, Naman Agarwal, Udaya Ghai, Karan Singh, Cyril Zhang, Anirudha Majumdar, Elad Hazan. *Differentiable Computer Vision, Graphics, and Physics in Machine Learning Workshop, Neural Information Processing Systems (NeurIPS)*. 2020.

EMPLOYMENT

Student Researcher, **Google AI Princeton** July 2019 - June 2021

Research Assistant, **Princeton University**

Geophysical Fluid Dynamics Laboratory Feb 2019 - July 2019

Socio-Cognitive Processes Lab Oct 2017 - July 2018

Research Intern, **Romanian Academy** Feb 2016 - Mar 2017

Research Institute for Artificial Intelligence "Mihai Drăgănescu"

TEACHING

Teaching Assistant, Computational Control Theory. Princeton University, Fall 2020.

Graduate Student Instructor, Statistical Learning Theory. University of California, Berkeley, Fall 2023.

LEADERSHIP

Women in Machine Learning (WiML)

General Chair, The 3rd WiML Un-Workshop 2022

Women in Computer Science and Electrical Engineering (WiCSE)

Social Chair 2022-2023

Co-President 2023-2024

PEER REVIEW

Journal of Machine Learning Research	2022
International Conference on Machine Learning	2022
Neural Information Processing Systems	2022 (top 8%), 2023
Conference on Learning for Dynamics and Control	2023

GRADUATE COURSEWORK

University of California, Berkeley

Theoretical Foundations of Learning, Decisions, and Games
Linear Systems Theory
Causal Inference
Advanced Topics in Statistical Learning

Princeton University

Measure-Theoretic Probability Theory
Information Theory
Theoretical Machine Learning
Optimization for Machine Learning
Optimization on Smooth Manifolds
Deep Learning for Natural Language Processing
Theory of Weakly Supervised Learning
Foundations of Reinforcement Learning
Mathematical Understanding of Deep Learning