ULYANA PITERBARG

up2021@cims.nyu.edu · upiterbarg.github.io

EDUCATION

Ph.D., Computer Science (GPA 3.9/4.0) — 2021 - 2026
New York University
Advisors: Prof. Rob Fergus, Prof. Lerrel Pinto

B.S., Mathematics with Computer Science (GPA 4.9/5.0) — 2017 - 2021
Massachusetts Institute of Technology
Advisors: Prof. Joshua Tenenbaum, Prof. Jörn Dunkel

HONORS & AWARDS

National Science Foundation Graduate Research Fellowship — 2022-2025
Google DeepMind Ph.D. Scholarship — 2021-2022
NYU Henry M. MacCracken Doctoral Fellowship — 2021-2026
MIT Quest for Intelligence Undergraduate Research and Innovation Scholarship — 2020-2021
EPFL School of Life Sciences Summer Research Program Fellowship — 2018
National Merit Scholarship — 2017

EMPLOYMENT

Ph.D. Research Intern, Applied Science Team, *Google LLC* — 2021
Researcher, Ocean Processes, *Climate Modeling Alliance* — 2020-2021
Investment Associate Intern, *Bridgewater Associates LP* — 2020
Software Engineering Intern, Machine Learning Operations, *Spell* — 2019
Technical Assistant, Space Systems and Technlogy Division, *MIT Lincoln Laboratory* — 2017-2018
Exhibitions Design Intern, *American Museum of Natural History* — 2017

PUBLICATIONS

Allen, K. R., Smith, K., **Piterbarg, U.**, Chen, R., & Tenenbaum, JB. (In Preparation). Rapid multi-task learning with relational program policies.

Piterbarg, U., Pinto, L., & Fergus, R. (2023). NetHack is hard to hack. *37th Conference on Neural Information Processing Systems (NeurIPS).*

Ramadhan, A., Marshall, J., Souza, A., Lee, XK., **Piterbarg, U.**, Hillier, A., LeClaire Wagner, G., & Rackauckas, C. (2023). Capturing missing physics in climate model parameterizations using neural differential equations. *arXiv preprint arXiv:2010.12559 (In Submission to JAMES).*

Allen, K. R., Smith, K., **Piterbarg, U.**, Chen, R., & Tenenbaum, JB. (2020). Abstract strategy learning underlies flexible transfer in physical problem solving. In *CogSci.*

INVITED TALKS

Structured Losses for Neural Simulators of Turbulent Flows, *Google Accelerated Sciences.* — 2021
The Cognitive Bases of Flexible Transfer in Physical Problem Solving, *Google Brain.* — 2021

TEACHING

Lecturer and Teaching Assistant, *Introduction to Robot Intelligence (CSCI-UA 480-072)* 2023
New York University
Department of Computer Science

Teaching Assistant, *Seminar in Analysis (18.104)* 2021
Massachusetts Institute of Technology
Department of Mathematics

Undergraduate Teaching Assistant, *Computational Cognitive Science (9.66/9.660/6.804)* 2019
Massachusetts Institute of Technology
Department of Brain and Cognitive Sciences

ADVISING

Carla Garcia Medina (now Research Engineer at *Google LLC*) 2022-2023

PROFESSIONAL SERVICE

Council Member, *MIT Council for Math Majors* 2020-2021
Mentor, *MIT Undergraduate Society of Women in Math* 2019-2021
Mentor, *MIT Society of Women Engineers* 2019-2021
Volunteer, *Rolnick Observatory* 2015-2017
Member, *Westport Astronomical Society* 2015-2017
Contributor, *International Occulation Timing Association* 2015-2017

EXPERTISE

Training and Fine-tuning Foundation Models (Microsoft DeepSpeed, HuggingFace)
Machine Learning Workflows (PyTorch, Tensorflow, JAX)
Physical Simulators (MuJoCo, PyBullet)
Differentiable Programming (Julia, JAX, Taichi)

PROGRAMMING LANGUAGES

Python	Advanced Proficiency
GoLang	Intermediate Proficiency
JavaScript/CSS/HTML	Intermediate Proficiency
Julia	Intermediate Proficiency
MATLAB	Intermediate Proficiency
C/C++	Intermediate Proficiency

SPOKEN LANGUAGES

English	Native/Fluent
French	Working Proficiency (DELF B2)
Ukrainian	Limited Working Proficiency