ALANA JASKIR

Department of Cognitive, Linguistic, and Psychological Sciences (CLPS)
Carney Institute for Brain Science
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EDUCATION

BROWN UNIVERSITY 2018 - Present
PhD Candidate in Cognitive Science
GPA: 4.0/4.0, Advisor: Michael Frank

FULBRIGHT 2017 – 2018
English Teaching Assistant, Ukraine

PRINCETON UNIVERSITY 2017
B.A. in Computer Science, Minor in Cognitive Science, ***magna cum laude***

COURSEWORK

GRADUATE
Recent Applications of Probability & Statistics
Reinforcement Learning
Machine Learning
Computational Cognitive Neuroscience

UNDERGRADUATE
Computational Neuroscience
Computing and Optimization
Probability and Stochastic Systems
Animal Learning and Decision-Making
Machine Learning and AI
Linear Algebra
Algorithms and Data Structures

SKILLS

Python, MATLAB, R, Javascript, Bash, Git, TeX, jsPsych (behavioral task building), emergent (neural network simulator)

LEADERSHIP

Computational Cognitive Modeling of Behavioral & Neural Data Workshop, Co-organizer, Lecturer. Carney Institute for Brain Science. 2022 & 2023

Structure Learning Reading Group. Co-founder. Brown University. Interdisciplinary computer science, neuroscience, psychology topics 2019-2021

CLPS Departmental Diversity and Inclusion Action Plan, Graduate Student Representative (2020-2021), Department Climate Committee (2019-2020)

AD-HOC REVIEWING

Neuron, Proceedings of the National Academy of Sciences, Nature Human Behaviour, npj Science of Learning, Nature Neuroscience

HONORS AND AWARDS

Carney Graduate Award in Brain Science, 2023-2024

Interactionist Cognitive Neuroscience Training Grant (T32), 2021-2023

Reinforcement Learning & Decision Making Student Travel Award 2019

National Science Foundation, Graduate Research Scholarship - Honorable Mention, 2017 & 2019

Outstanding Computer Science Senior Thesis, financial award, 2017

Computing Research Association Research Scholar, Grace Hopper Celebration of Women in Computing, 2016

Lewis-Singler Institute for Computational Biology Research Grant, 2014

RESEARCH EXPERIENCE

DISSERATION | Brown University 2020 - 2021
Expediency and generalization in reinforcement learning
Committee: Michael Frank (CLPS), David Badre (CLPS), Matthew Nassar (Neuroscience)

UNDERGRADUATE THESIS | Princeton University 2016-2017
Outstanding Computer Science Senior Thesis Award
Learning How to Learn: The Interaction Between Attention and Learning as a Mechanism for Dimensionality Reduction in the Brain. PDF.
Advisor: Yael Niv (Princeton Neuroscience Institute and Psychology Department)
Second Reader: Barbara Engelhardt (Princeton Computer Science Department)

RESEARCH ASSISTANT | Princeton University 2015-2016
Applications of machine learning for decoding replay for memory task
Advisors: Luis Piloto, Ken Norman (Princeton Neuroscience Institute and Psychology Department)

RESEARCH ASSISTANT | Princeton University 2014
Role of hippocampal replay in constructing shortcuts in cognitive maps
Advisors: Stephanie Chan, Yael Niv (Princeton Neuroscience Institute and Psychology Department)

PUBLICATIONS

Jaskir, A., Frank, M.J. (2023). "On the normative advantages of dopamine and striatal opponency for learning and choice." eLife. PDF.

Gallo, M., A.A. Hamid, **A. Jaskir**, J. Bretton, T. Pan, D. Ofray, M.J. Frank, C.I. Moore, K.G. Bath (in prep.). "Early life adversity alters dopamine signaling underlying diminished reward sensitivity and slowed reinforcement learning in mice".

TALKS

"Expediency and generalization in human reinforcement learning," *Computational Cognitive Neuroscience Lab, UC Berkeley, 2023*

"Replay as state-abstraction for reinforcement learning," *Max Planck UCL Centre for Computational Psychiatry, 2023*

"On the normative advantages of basal ganglia opponency in risky decision making," *Verguts Lab, Ghent University, 2020*

"Computational advantages of motivational dopamine states for action selection," *New England Research on Decision Making (NERD)* 2019