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, Certificate in Cognitive Science, ***magna cum laude***

UNIVERSITY COLLEGE LONDON
Spring 2016, Affiliate Student in Computer Science

RELEVANT 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 (UCL)
Algorithms and Data Structures

SKILLS

Python, MATLAB, JS, C/C++, Bash, Git

ATTENDED WORKSHOPS

"Computational Cognitive Modeling of Behavioral and Neural Data," Carney Institute for Brain Science, Brown University, 2020, 1 week

"Representing states and spaces", Tim Behrens & Kim Stachenfeld, CCN 2019

TEACHING + LEADERSHIP

Structure Learning Reading Group
Co-founder. Interdisciplinary meetings, computer science, neuroscience, psychology attendees, Carney funded, 2019-2021

CLPS1492: Computational Cognitive Neuroscience TA, 2020/2021

Carney Computational Modeling Workshop TA, "Reinforcement Learning + Modeling Fitting", 2020/2021

CLPS2001: Core Concepts in Cognitive Science TA, Guest Lecture, "Reinforcement Learning", 2019

SELECTED RESEARCH PROJECTS

PRELIMINARY EXAM | Brown University 2020 - 2021
Replay as state abstraction in reinforcement learning
Committee: Michael Frank (CLPS), David Badre (CLPS), Matthew Nassar (Neuroscience), George Konidaris (Computer Science)

FIRST YEAR PROJECT | Brown University 2018-2019
Computational advantages of dopaminergic states for decision-making
Committee: Michael Frank (CLPS), Amitai Shenhav (CLPS), George Konidaris (Computer Science)

SENIOR 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
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/sleep 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)

PEER-REVIEWED CONFERENCE POSTERS

Jaskir, A., L. Lehnert, M.J. Frank (2022) "Sleep's role in analogous transfer for sequential reinforcement learning". *Winter Conference on Brain Research.*
Jaskir, A., M.J. Frank. (2019) Computational advantages of dopaminergic states for decision making. *Computational Cognitive Neuroscience (CCN).*
Jaskir, A., M.J. Frank. (2019) Computational advantages of dopaminergic states for decision making. *Motivation and Cognitive Control (MCC).*
Jaskir, A., M.J. Frank. (2019) The computational benefits of motivational dopamine states in the OpAL model. *RLDM*.*
Jaskir A., Y. Niv. (2017) Modeled learning weights predict attention and memory in a multidimensional probabilistic task. *RLDM*.*

**RLDM - Reinforcement Learning and Decision-Making Conference*

PUBLICATIONS

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

TALKS

"Computational advantages of dopaminergic states for decision-making," *Brown University Unconference* 2020
"Computational advantages of motivational dopamine states for action selection," *New England Research on Decision Making (NERD)* 2019

SELECTED HONORS AND AWARDS

Carney Institute's Interactionist Cognitive Neuroscience Grant, 2021-2023
RLDM 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