

ALANA JASKIR

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ACADEMIC POSITIONS

Postdoctoral Researcher New York University, Department of Psychology Advisor: Catherine Hartley	2024-Present
English Language Instructor U.S. Fulbright ETA Program, National University of Ukraine (NUWEE)	2017-2018

EDUCATION

Brown University Ph.D. Cognitive Science Specialization: Computational Neuroscience Advisor: Michael J. Frank	2018-2024
Princeton University B.A. Computer Science, <i>magna cum laude</i> Minor: Cognitive Science Award: Outstanding Computer Science Senior Thesis Advisor: Yael Niv	2013-2017
University College London Affiliate Student in Computer Science - Spring Semester	2016

TEACHING EXPERIENCE

SRNDNA Computational Modeling Workshop Invited Lecturer: "Introduction to Reinforcement Learning" <i>Organizer: Debbie Yee</i>	University of Pennsylvania 2024
Carney Computational Cognitive Modeling of Behavioral & Neural Data Co-organizer, Lecturer Teaching Assistant <i>Topics: Reinforcement Learning, Bayesian models, Drift Diffusion Models</i> <i>Co-Instructors: Andra Geana, Debbie Yee</i>	Brown University 2022 & 2023 2020 & 2021
Modeling in Cognitive Science Invited Lecturer: "On the normative advantages of basal ganglia opponency in risky decision making" <i>Instructor: Sebastian Musslick</i>	University of Osnabrück 2023
Computational Cognitive Neuroscience Guest Lecturer: "Temporal Reinforcement Learning" <i>Instructor: Michael J. Frank</i>	Brown University 2020/2021/2022
CLPS Inclusive Teaching Workshop Coordinator, Discussion group leader <i>In collaboration with Sheridan Teaching Center</i>	Brown University 2022
Sheridan Teaching Certificate Course Semester course on inclusive teaching	Brown University 2021
Free Will and the Brain Teaching Assistant <i>Instructor: Louis Gularte</i>	Summer at Brown 2021
Core Concepts in Cognitive Science Teaching Assistant, Guest Lecturer: "Reinforcement Learning" <i>Instructors: Bill Warren, David Badre</i>	Brown University 2019
Neuroeconomics: The Science of Decision-Making Invited Lecturer: "Learning, Modeling, and the Brain" <i>Instructor: Amrita Lamba</i>	Summer at Brown 2019
U.S. Fulbright Student Program English Language Instructor, National University of Ukraine (NUWEE)	Rivne, Ukraine 2017-2018
Data Structures and Algorithms Peer Tutor	Princeton University 2015
Nambala Primary School Math and science teacher	Arusha, Tanzania 2015

MENTORSHIP		
Avery McKay	Undergraduate Research Assistant	2025-Present
Joshua Hewson	Undergraduate Research Assistant	2024
Andrew Zhang	Leadership Alliance Undergraduate Student	2024
Damir Kulzhanov	Undergraduate Research Assistant	2023
Rachel Kaniuk	Leadership Alliance Undergraduate Student	2023
Priyanka Solanky*	Undergraduate Research Assistant	2021–2023
Shaurya Goyal	Undergraduate Research Assistant	2022
Lise Vansteenkiste	Visiting Graduate Student	2019

**denotes thesis student*

HONORS AND AWARDS	
Carney* Graduate Award in Brain Science	2023-2024
Carney* Interactionist Cognitive Neuroscience Training Grant (T32) Competitive grant awarded to advanced pre-doctoral students pursuing research integrating com- putation, cognitive neuroscience, and systems neuroscience.	2021-2023
RLDM* Conference Travel Fellowship	2019
NSF Graduate Research Scholarship - Honorable Mention	2017 & 2019
Outstanding Computer Science Senior Thesis Princeton University’s Computer Science Department	2017
Undergraduate Thesis Summer Research Fellowship Princeton University’s Office of the Dean of the College	2016
Grace Hopper* Research Scholar Computing Research Association’s (CRA) travel award for research-oriented students	2016
Integrative Science Summer Research Fellowship Princeton University’s Lewis-Sigler Institute for Computational Biology	2014

**Carney - Carney Institute for Brain Science at Brown University*

**RLDM - The Multi-disciplinary Conference on Reinforcement Learning and Decision Making*

**Grace Hopper - Grace Hopper Celebration for Women in Computing*

PUBLICATIONS	
Jaskir, A. , Frank, M.J. (in preparation). “Generalization in human reinforcement learning reflect reward-predictive state abstractions.”	
Gallo, M., A.A. Hamid, A. Jaskir , J. Bretton, T. Pan, D. Ofray, M.J. Frank, C.I. Moore, K.G. Bath (in preparation.). “Early life adversity alters dopamine signaling underlying diminished reward sensitivity and slowed reinforcement learning in mice”.	
Hewson, J. T*, Jaskir, A. , and Frank, M. J. (2025). "Many roads to minimizing regret: A comparison of Wang et al (2024) and OpAL* models of adaptive striatal dopamine. PLOS Computational Biology.	
Jaskir, A. , Frank, M.J. (2023). “On the normative advantages of dopamine and striatal opponency for learning and choice.” eLife. doi.org/10.7554/eLife.85107	

** denotes mentee*

INVITED TALKS	
"Normative advantages of dopamine and striatal opponency for learning and choice" <i>Representational Codes and Learning Rules Workshop</i> , Trinity College	RLDM Conference 2025
"Discovering analogous structure supports transfer in human reinforcement learning" Computation and Decision-Making Lab	New York University 2024
"Discovering analogous structure supports transfer in human reinforcement learning" Schuck Lab	University of Hamburg 2024
"On the normative advantages of basal ganglia opponency in risky decision making" Expert Talk Series, Modeling in Cognitive Science course	University of Osnabrück 2023
"Expediency and generalization in human reinforcement learning" Computational Cognitive Neuroscience Lab	UC Berkeley 2023
"Expediency and generalization in human reinforcement learning" Cognition Seminar Series	Brown University 2023
"Replay as state-abstraction for reinforcement learning" Max Planck UCL Centre for Computational Psychiatry	University College London 2023

"On the normative advantages of basal ganglia opponency in risky decision making" Verguts Lab	Ghent University 2020
"Computational advantages of dopaminergic states for decision-making" Brown University Unconference	Brown University 2020
"Computational advantages of motivational dopamine states for action selection" New England Research on Decision Making (NERD) Conference	Harvard University 2019

PEER-REVIEWED CONFERENCE POSTERS

Jaskir, A., C. Hartley (2025) "Effects of offline consolidation on statistical learning across development". RLDM

Jaskir, A., M.J. Frank (2024) "Discovering analogous structure supports transfer in human reinforcement learning". Computational Psychiatry Conference

Jaskir, A., M.J. Frank (2023) “Generalization in reinforcement learning and the role of sleep”. Society for Neuroscience, Washington D.C.

Jaskir, A., M.J. Frank (2023) “Sleep for creative insight in reward learning”. Curiosity, Creativity, and Complexity, Columbia University.

Jaskir, A., M.J. Frank (2022) “Sleep’s role in state-abstraction for sequential reinforcement learning”. Society for Neuroscience.

Jaskir, A., M.J. Frank (2022) “Sleep’s role in analogous transfer for sequential reinforcement learning”. RLDM.

Gallo, M., A.A. Hamid, **A. Jaskir**, T. Pan, D. Ofray, M.J. Frank, C.I. Moore, K.G. Bath (2022) “Early life adversity slows reinforcement learning and disrupts optimal decision making in adult mice”. International Society for Developmental Psychobiology.

Gallo, M., A.A. Hamid, **A. Jaskir**, T. Pan, D. Ofray, M.J. Frank, C.I. Moore, K.G. Bath (2022) “Mouse model of early life adversity alters reinforcement learning and strategies for decision making”. RLDM*, Providence, RI.

Gallo, M., A.A. Hamid, **A. Jaskir**, T. Pan, D. Ofray, M.J. Frank, C.I. Moore, K.G. Bath (2021) “Early life adversity alters reward learning and decision making mechanisms in mice”. International Society for Developmental Psychobiology.

Jaskir, A., M.J. Frank (2019) "Computational advantages of dopaminergic states for decision making." Motivation and Cognitive Control.

Jaskir, A., M.J. Frank. (2019) "Computational advantages of dopaminergic states for decision making." Computational Cognitive Neuroscience (CCN).

Jaskir, A., M.J. Frank (2019) "The computational benefits of motivational dopamine states in the OpAL model." RLDM.

Jaskir, A., M.J. Frank (2019) "Simulating the benefits of motivational dopamine states." Winter Conference on Brain Research.

Jaskir, A., Y. Niv, (2017) "Modeled learning weights predict attention and memory in a multidimensional probabilistic task." RLDM.

AD-HOC REVIEWING

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

SKILLS

Programming (proficient):	Python, MATLAB, R, Bash, Git
Programming (experience):	Java, C/C++, Go, OCaml
Software (proficient):	jsPsych PsychoPy emergent (biological neural network simulator), Honeycomb (behavioral and neural task building)
Languages:	Intermediate French <i>IS Aix-en-Provence summer immersion, 2015</i> Beginner Ukrainian <i>Ukrainian Language and Cultural School, Lviv, two-week immersion, 2018</i>

LEADERSHIP

Carney Computational Cognitive Modeling of Behavioral & Neural Data Co-organizer, Lecturer	2022 & 2023
<ul style="list-style-type: none"> Two-week course on cognitive modeling frameworks (reinforcement learning, Bayesian inference, drift diffusion models), model validation and comparison, and applications, such as computational psychiatry. Designed original lectures and led hands-on tutorials for reinforcement learning 	

- Handled administrative emails (e.g. guest speakers, budget) and established organizational procedures
- Approximately 30 students/year ranging from novice to expert modelers

The Multi-disciplinary Conference on Reinforcement Learning and Decision Making (RLDM)
Committee for conference networking events

Providence, RI
2022

- Co-organized speed networking event for trainees and senior faculty
- Collected and organized informational document for local food and events for distribution to attendees

Structure Learning Reading Group
Co-founder, co-organizer

Carney Institute for Brain Science
2019-2021

- Monthly, interdisciplinary reading group focused on "structure learning", or how to learn low-dimensional representations of higher dimensional environments that can be used for generalization
- Computer science, neuroscience, psychology post-doctoral and graduate student attendees
- Funding sponsored by the Carney Brain Institute

CLPS Departmental Diversity and Inclusion Action Plan (DIAP)
DIAP Graduate Student Representative

Providence, RI
2020-2021

- Originator of representative role
- Created procedures and documentation process for grievances and graduate concerns
- Created a peer-buddy network, pairing new students with senior graduate students for community building
- Drafted charges for creation of four DIAP subcommittees staffed by volunteer students and faculty
- Facilitated group discussions on current events

Community Engagement and Outreach subcommittee
Department Climate Committee

2020-2021
2019-2020

- Collected and integrated survey feedback on values and goals for the department from students, postdocs, and faculty for department climate statement

COMMUNITY ENGAGEMENT

Working Group for Public Engagement in Science
Member
Lead Organizer: Wei Ji Ma

New York University
2025-Present

- Faculty and dean working group designing university-wide graduate curriculum for science communication

investNscience
Co-founder

2025-Present

- Social media initiative showcasing the real-life impact of current science in everyday language
- Organized free, virtual, and hands-on workshop for scientists to learn science communication fundamentals from professional communicators. Participants were guided through the process of writing a script and then filming a science communication video to be featured on the investNscience page.

Hartley Lab Outreach Events
Volunteer instructor

New York University
2024-Present

- Class visits where students interact with real brains, visit an fMRI machine, and play behavioral tasks.

Leadership Alliance
Near-peer mentor
Graduate school fair volunteer

Brown University
2023/2024
2022

- Leadership Alliance promotes diversity in STEM by supporting students from underrepresented groups in summer research opportunities

College Day at Brown
Volunteer instructor

Brown University
2023/2024

- One-day event for Rhode Island high school students to experience a college-level classroom.
- Co-taught cognitive neuroscience material where students collected and interpreted experimental data

Brain Week RI

"Brainy Adventures" Coordinator

Brown University

2020

• Organized approximately 20 volunteers (undergraduate, graduate, post-doc, staff) into three outreach groups to create original content videos on brain-related concepts. Videos were shown to local schools in combination with virtual "meet-a-scientist" classroom events.

• Head script writer and performer for video on auditory illusions.

• Organized and scheduled an additional 15 volunteers for five virtual "meet-a-scientist" classroom events.

Brain Fair Volunteer

2019

Technovation

Co-organizer, group mentor

Rivne, Ukraine

2017-2018

• Technovation is an international competition that equips young girls with coding skills to solve problems in their local communities.

• Co-organized a year-long community project that paired the standard Technovation curriculum with original monthly workshops on empowerment, leadership, gender roles, and team building

• Organized in collaboration with local community activist and Peace Corps volunteers

• Divided twenty-four girls into six teams and matched each team with two dedicated mentors (one Ukrainian and one American volunteer)

• Three teams attended the country-wide Technovation celebration in Kyiv and presented posters of their projects

Princeton University Student Government’s Big Sibs Program

Student mentor

Princeton University

2015-2017

• Community-based outreach program for disadvantaged middle school students from the greater Princeton area. Program aimed at mentoring, empowering, and improving literacy of students.

Theatre Intime

Assistant technical director, light designer, performer, director

Princeton University

2013-2017

Princeton Institute for Chocolate Studies

Chocolate maker in bean-to-bar, not-for-profit, student chocolate production group

Princeton University

2014-2017

ADDITIONAL RESEARCH TRAINING

Carney Brainstorm Competition

Won \$1500 team prize for behavioral and neural analyses

1-week data analysis workshop on SEEG analysis (decoding, classification, sharp wave ripples detection, time series decomposition) and a 3-week hackathon on a clinical SEEG data set.

Topics: Sleep, replay, memory consolidation

Brown University

2024

Kavli Summer Institute in Cognitive Neuroscience

Two-week course that trains attendees in cutting-edge methods and theoretical perspectives, including their translation to mental health challenges

Topics: Motivated Cognition, Attention

UC Santa Barbara

2022

Niv Lab

Advisors: Yael Niv (Princeton University), Stephanie Chan (Princeton, Google DeepMind)

Research Assistant

2014; 2016-2017

Computational Memory Lab

Advisors: Ken Norman (Princeton University), Luis Piloto (Princeton, Google DeepMind)

Research Assistant

2015-2016