Alana Jaskir

Postdoctoral Researcher
Department of Psychology
New York University
aj4618@nyu.edu · 609-947-7642 · amjaskir.github.io

Academic Positions

Postdoctoral Researcher 2024-Present
New York University, Department of Psychology
Advisor: Catherine Hartley

English Language Instructor 2017-2018
U.S. Fulbright ETA Program, National University of Ukraine (NUWEE)

Education

Brown University 2018-2024
Ph.D. Cognitive Science
Specialization: Computational Neuroscience
Advisor: Michael J. Frank

Princeton University 2013-2017
B.A. Computer Science, *magna cum laude*
Minor: Cognitive Science
Award: Outstanding Computer Science Senior Thesis
Advisor: Yael Niv

University College London 2016
Affiliate Student in Computer Science - Spring Semester

Honors and Awards

Carney* Graduate Award in Brain Science 2023-2024

Carney* Interactionist Cognitive Neuroscience Training Grant (T32) 2021-2023
Competitive grant awarded to advanced pre-doctoral students pursuing research integrating computation, cognitive neuroscience, and systems neuroscience.

RLDM* Conference Travel Fellowship 2019

NSF Graduate Research Scholarship - Honorable Mention 2017 & 2019

Outstanding Computer Science Senior Thesis 2017
Princeton University's Computer Science Department

Undergraduate Thesis Summer Research Fellowship 2016
Princeton University's Office of the Dean of the College

Grace Hopper* Research Scholar 2016
Computing Research Association's (CRA) travel award for research-oriented students

Integrative Science Summer Research Fellowship 2014
Princeton University's Lewis-Sigler Institute for Computational Biology

**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" — RLDM Conference, 2025
Representational Codes and Learning Rules Workshop, Trinity College

"Discovering analogous structure supports transfer in human reinforcement learning" — New York University, 2024
Computation and Decision-Making Lab

"Discovering analogous structure supports transfer in human reinforcement learning" — University of Hamburg, 2024
Schuck Lab

"On the normative advantages of basal ganglia opponency in risky decision making" — University of Osnabrück, 2023
Expert Talk Series, Modeling in Cognitive Science course

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

"Expediency and generalization in human reinforcement learning" — Brown University, 2023
Cognition Seminar Series

"Replay as state-abstraction for reinforcement learning" — University College London, 2023
Max Planck UCL Centre for Computational Psychiatry

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

"Computational advantages of dopaminergic states for decision-making" — Brown University, 2020
Brown University Unconference

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

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 *IS Aix-en-Provence summer immersion, 2015* Beginner Ukrainian *Ukrainian Language and Cultural School, Lviv, two-week immersion, 2018*

Teaching Experience

SRNDNA Computational Modeling Workshop — University of Pennsylvania
Invited Lecturer: "Introduction to Reinforcement Learning" — 2024
Organizer: Debbie Yee

Carney Computational Cognitive Modeling of Behavioral & Neural Data — Brown University
Co-organizer, Lecturer — 2022 & 2023
Teaching Assistant — 2020 & 2021
Topics: Reinforcement Learning, Bayesian models, Drift Diffusion Models
Co-Instructors: Andra Geana, Debbie Yee

Modeling in Cognitive Science — University of Osnabrück
Invited Lecturer: "On the normative advantages of basal ganglia opponency in risky decision making" — 2023
Instructor: Sebastian Musslick

Computational Cognitive Neuroscience — Brown University
Guest Lecturer: "Temporal Reinforcement Learning" — 2020/2021/2022
Instructor: Michael J. Frank

CLPS Inclusive Teaching Workshop — Brown University
Coordinator, Discussion group leader — 2022
In collaboration with Sheridan Teaching Center

Sheridan Teaching Certificate Course — Brown University
Semester course on inclusive teaching — 2021

Free Will and the Brain — Summer at Brown
Teaching Assistant — 2021
Instructor: Louis Gularte

Core Concepts in Cognitive Science — Brown University
Teaching Assistant, Guest Lecturer: "Reinforcement Learning" — 2019
Instructors: Bill Warren, David Badre

Neuroeconomics: The Science of Decision-Making — Summer at Brown
Invited Lecturer: "Learning, Modeling, and the Brain" — 2019
Instructor: Amrita Lamba

U.S. Fulbright Student Program — Rivne, Ukraine
English Language Instructor, National University of Ukraine (NUWEE) — 2017-2018

Data Structures and Algorithms — Princeton University
Peer Tutor — 2015

Nambala Primary School — Arusha, Tanzania
Math and science teacher — 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*

Leadership

Carney Computational Cognitive Modeling of Behavioral & Neural Data
Co-organizer, Lecturer — 2022 & 2023

- 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) — Providence, RI, 2022
Committee for conference networking events

- 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 — Carney Institute for Brain Science
Co-founder, co-organizer — 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) — Providence, RI
DIAP Graduate Student Representative — 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 — 2020-2021
Department Climate Committee — 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 — New York University
Member — 2025-Present
Lead Organizer: Wei Ji Ma

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

investNscience — 2025-Present
Co-founder

- 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.

Leadership Alliance — Brown University
Near-peer mentor — 2023/2024
Graduate school fair volunteer — 2022

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

Brain Week RI Brown University
"Brainy Adventures" Coordinator 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 Rivne, Ukraine
Co-organizer, group mentor 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 Princeton University
Student mentor 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 Princeton University
Assistant technical director, light designer, performer, director 2013-2017

Princeton Institute for Chocolate Studies Princeton University
Chocolate maker in bean-to-bar, not-for-profit, student chocolate production group 2014-2017

Additional Research Training

Carney Brainstorm Competition Brown University
Won $1500 team prize for behavioral and neural analyses 2024
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

Kavli Summer Institute in Cognitive Neuroscience UC Santa Barbara
Two-week course that trains attendees in cutting-edge methods and theoretical perspectives, including their translation to mental health challenges 2022
Topics: Motivated Cognition, Attention

Computational Memory Lab Research Assistant
Advisors: Ken Norman (Princeton University), Luis Piloto (Princeton,Deep Mind) 2015-2016