Ionatan Kuperwajs

Curriculum Vitae

ikuperwajs@princeton.edu | ionatankuperwajs.github.io | Princeton University

EMPLOYMENT

Princeton University, Princeton, NJ 2024-Present
Postdoctoral Research Associate
Department of Computer Science
Advisor: Thomas L. Griffiths

EDUCATION

New York University, New York, NY 2018-2024
Ph.D. in Neural Science
Thesis: Cognitive mechanisms of complex planning
Advisor: Wei Ji Ma

Macalester College, St. Paul, MN 2014-2018
B.A. in Neuroscience, Computer Science, and Mathematics
Honors in Mathematics, Magna Cum Laude
Advisor: Andrew Beveridge

PUBLICATIONS

Preprints

I Kuperwajs, B van Opheusden, EM Russek, and TL Griffiths (2024). Learning from rewards and social information in naturalistic strategic behavior. *PsyArXiv.*

I Kuperwajs, MK Ho, and WJ Ma (2024). Heuristics for meta-planning from a normative model of information search. *PsyArXiv.*

Journal articles

I Kuperwajs, HH Schütt, and WJ Ma (2023). Using deep neural networks as a guide for modeling human planning. *Scientific Reports.*

B van Opheusden, **I Kuperwajs**, G Galbiati, Z Bnaya, Y Li, and WJ Ma (2023). Expertise increases planning depth in human gameplay. *Nature.*

Conference proceedings

I Kuperwajs, HH Schütt, and WJ Ma (2022). Improving a model of human planning via large-scale data and deep neural networks. *Proceedings of the 44th Annual Meeting of the Cognitive Science Society.*

I Kuperwajs and WJ Ma (2022). A joint analysis of dropout and learning functions in human decision-making with massive online data. *Proceedings of the 44th Annual Meeting of the Cognitive Science Society.*

I Kuperwajs and WJ Ma (2021). Planning to plan: a Bayesian model for optimizing the depth of decision tree search. *Proceedings of the 43rd Annual Meeting of the Cognitive Science Society.*

I Kuperwajs, B van Opheusden, and WJ Ma (2019). Prospective planning and retrospective learning in a large-scale combinatorial game. *Cognitive Computational Neuroscience.*

AWARDS AND FELLOWSHIPS

NYU Graduate School of Arts and Sciences Dean's Outstanding Dissertation Award	2024
National Science Foundation Graduate Research Fellowship	2020-2023
Cognitive Computational Neuroscience Trainee Travel Grant	2019
Henry Mitchell McCracken Fellowship	2018
Phi Beta Kappa National Honor Society Member	2018
Macalester College Neuroscience Department Outstanding Graduate Award	2018
Macalester College Dean's List	2014-2018
Computational and Systems Neuroscience Undergraduate Travel Grant	2018
Minnesota Intercollegiate Athletic Conference Men's Soccer Academic All-Conference Team	2015-2017
Macalester College DeWitt Wallace Distinguished Scholar	2014

SUMMER SCHOOLS AND INTERNSHIPS

Simons Computational Neuroscience Imbizo, Cape Town, South Africa	2018
Howard Hughes Medical Institute Janelia Undergraduate Scholars Program, Ashburn, VA	2017
New York University Center for Neural Science NSF REU, New York, NY	2016

INVITED TALKS

Parallel Distributed Processing Seminar, Princeton University	2024
Computational Cognitive Neuroscience Lab, UC Berkeley	2023
Computational Cognitive Science Lab, Princeton University	2023
Cognitive Science Society, Toronto, Canada (2 talks)	2022
Cognitive Science Society, University of Vienna	2021
Center for Neural Science Seminar, New York University	2020
Concepts and Categories Seminar, New York University	2019
Artificial and Biological Computation Lab, New York University	2019
Sensorimotor Learning Group, Columbia University	2019

CONFERENCE POSTERS

AAAI Collaborative AI and Modeling of Humans, Vancouver, Canada	2024
Cognitive Computational Neuroscience, Oxford University	2023
Minds, Brains, and Machines, New York University	2023
Reinforcement Learning and Decision Making, Brown University (3 posters)	2022
Workshop on Scaling Cognitive Science, Princeton University	2019
Cognitive Computational Neuroscience, Technical University of Berlin	2019

TEACHING

New York University, Teaching Assistant

NEURL-GA 2201: Mathematical Tools for Neural and Cognitive Science	F 19

Macalester College, Teaching Assistant

COMP 221: Algorithm Design and Analysis	F 17, S 18
PSYC 180: Brain, Mind, and Behavior	F 16
COMP 123: Core Concepts in Computer Science	S 16, F 16

SERVICE

Ad hoc reviewing

Cognitive Computational Neuroscience
Cognitive Science Society
Communications Psychology

Nature Human Behaviour

Workshop organization

Co-organizer, Chess as a bridge between human cognition and artificial intelligence, Reinforcement Learning and Decision Making, Trinity College Dublin 2025

Advocacy and outreach

President, Scientist Action and Advocacy Network (ScAAN) 2018-2023
Workshop on the Climate Crisis, Cognitive Computational Neuroscience, Oxford University 2023
Workshop on Environmental Justice, Ocean Sciences Meeting 2022
Workshop on Evidence-Based Advocacy, American Geophysical Union, New Orleans, LA 2021
Workshop on Science Activism, Rockefeller University 2021
Panel on Science Activism, Growing Up in Science 2020

REFERENCES

Thomas L. Griffiths
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Departments of Psychology and Computer Science
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Wei Ji Ma
Professor, New York University
Center for Neural Science and Department of Psychology
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Associate Professor, University of Luxembourg
Department of Behavioural and Cognitive Sciences
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Mark K. Ho
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