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 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, 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
HHMI Janelia Undergraduate Scholars Program, Ashburn, VA 2017
NYU 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
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

Advocacy and outreach

President, Scientist Action and Advocacy Network (ScAAN) 2018-2023
Climate Crisis Workshop, Cognitive Computational Neuroscience 2023
Environmental Justice Workshop, Ocean Sciences Meeting 2022
Evidence-Based Advocacy Workshop, American Geophysical Union 2021
Science Activism Workshop, Science and Education Policy Association 2021
Science Activism Panel, Growing Up in Science 2020

REFERENCES

Thomas Griffiths
Professor, Princeton University
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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Department of Behavioural and Cognitive Sciences
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Mark Ho
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Department of Computer Science
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