

# Ionatan Kuperwajs

## Curriculum Vitae

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

### EMPLOYMENT

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<b>Princeton University</b> , Princeton, NJ Postdoctoral Research Associate Department of Computer Science Advisor: Thomas Griffiths	2024-Present
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### EDUCATION

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<b>New York University</b> , New York, NY Ph.D. in Neural Science Thesis: Cognitive mechanisms of complex planning Advisor: Wei Ji Ma	2018-2024
<b>Macalester College</b> , St. Paul, MN B.A. in Neuroscience, Computer Science, and Mathematics Honors in Mathematics, Magna Cum Laude Advisor: Andrew Beveridge	2014-2018

### PUBLICATIONS

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#### In preparation

I Kuperwajs, MK Ho, and WJ Ma (in prep). Heuristics for meta-planning from a normative model of information search. [📄](#)

#### 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

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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

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<b>Simons Computational Neuroscience Imbizo</b> , Cape Town, South Africa	2018
<b>HHMI Janelia Undergraduate Scholars Program</b> , Ashburn, VA	2017
<b>NYU Center for Neural Science NSF REU</b> , New York, NY	2016

## INVITED TALKS

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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

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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

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<b>New York University</b> , Teaching Assistant	
NEURL-GA 2201: Mathematical Tools for Neural and Cognitive Science	F 19
<b>Macalester College</b> , 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

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### 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

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Thomas Griffiths  
Professor, Princeton University  
Departments of Psychology and Computer Science  
`tomg@princeton.edu`

Wei Ji Ma  
Professor, New York University  
Center for Neural Science and Department of Psychology  
`weijima@nyu.edu`

Heiko Schütt  
Associate Professor, University of Luxembourg  
Department of Behavioural and Cognitive Sciences  
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Mark Ho  
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Department of Computer Science  
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