# Education

**University of Michigan (Ann Arbor, MI)**

*PhD Pre-Candidate*, Cognition and Cognitive Neuroscience, Psychology Anticipated May 2023

Research Advisors: Dr. Priti Shah, Dr. John Jonides GPA: 3.94/4.00

**Purdue University (West Lafayette, IN)** *Bachelor of Science*, Major in Brain and Behavioral Sciences with Research-Focused Honors May 2018

Research Advisors: Dr. Sébastien Hélie, Dr. Thomas Redick Major GPA: 3.99/4.00

Research Interests

Problem Solving, Education and Technology, Critical Thinking, Test Anxiety, Higher-Order Cognition

Research Experience

- Research Assistantships -

**Basic and Applied Cognition Lab**  August 2018 - present

PI: Dr. Priti Shah

Topics: Scientific Reasoning, Problem Solving, Education

**Purdue Lab for Computational Cognitive Neuroscience** May 2016 – May 2018

PI: Dr. Sébastien Hélie

Topics: Perceptual Categorization, Decision-Making, Problem Solving

**Purdue Applied Cognition Lab** May 2016 – December 2016, May 2017 – May 2018

PI: Dr. Thomas Redick

Topics: Working Memory, Attention, Mind-wandering, Prospective Memory

- Research Training Programs -

**National Science Foundation Undergraduate Research Experience** August 2017 – May 2018

User Experience Pedagogy and Practice Lab

PI: Dr. Colin Gray

Project: *Exploring Ethical User-Experience Design*

**Purdue College of Education Research Training Program** August 2017 – May 2018

PI: Dr. Rachel Kenney, Dr. Yukiko Maeda

Projects: *Understanding Assessment in Mathematics and Science Classrooms,*

*Developing Meta Analytic Methods for Qualitative Data Analysis*

**Purdue Research Focused Honors Program** May 2017 – May 2018

PI: Dr. Sébastien Hélie, Dr. Thomas Redick

Project: *Strategy Learning in Distributed Cognitive Tasks: Do External Representations*

*Promote Passive Problem Solving?*

**National Science Foundation Undergraduate Research Experience** August 2016 – May 2017

PI: Dr. Sébastien Hélie

Project: *Understanding How Task Instruction Affects Perceptual Category Learning Through fMRI*

# Teaching Experience

**Graduate Student Instructor, University of Michigan (Ann Arbor, MI)**

Introduction to Cognitive Psychology (PSYCH 240) Winter 2019, Fall 2019

Publications

**Fansher, M.** & Hélie, S. (in preparation). Strategy learning in distributed cognitive tasks: Do external representations promote passive problem solving?

**Fansher, M**., Chivukula, S. S., & Gray, C. M. (2018). #darkpatterns: UX Practitioner Conversations About Ethical Design. *In CHI EA ’18: CHI’18 Extended Abstracts on Human Factors in Computing Systems*. New York, NY: ACM Press. doi: 10.1145/3170427.3188553.

Hélie, S., & **Fansher, M.** (2018). Categorization system–switching deficits in typical aging and Parkinson’s disease. *Neuropsychology, 32*(6), 724-634. doi: 10.1037/neu0000459.

# Professional Presentations

**Fansher, M**., Hélie, S., Shah, P. (2019, June). The role of internal and external representations in strategy learning in the Tower of Hanoi. Poster given at the *13th bi-annual meeting of the Society for Applied Research in Memory and Cognition*, Cape Cod, MA.

Hélie, S., Shamloo, F., **Fansher, M.**, Ell, S.W. (2019, March). Using fMRI to explore the effects of task instructions and response strategy. Poster given at *the Cognitive Neuroscience Society 19th Annual Meeting*, San Francisco, CA.

**Fansher, M.**, & Hélie, S. (2018, April). The role of internal and external representations in strategy acquisition. Poster given at the *16th annual Purdue Psychology Undergraduate Research Conference*, West Lafayette, IN.

**Fansher, M.**, Chivukula, S.S., & Gray, C.M. (2018, April). Capturing UX Practitioner Conversations About Ethical Design on Twitter. Poster given at the *annual Purdue Undergraduate Research Conference*, West Lafayette, IN.

**Fansher, M.**, & Hélie, S. (2018, March). Strategy learning in distributed cognitive tasks: Do external representations promote passive problem solving? Poster given at the *Annual Graduate Student Educational Research Symposium*, West Lafayette, IN.

Hélie, S., **Fansher M.** (2017, November).Categorization system–switching deficits in typical aging and Parkinson’s disease. Paper presented at the *annual Psychonomic Society Conference*, Vancouver, BC.

# Fansher, M., Redick, T.S., & Hélie, S. (2017, June). Categorization system switching: The role of individual differences in executive function. Poster given at the *annual Midwest Cognitive Science Conference*, Oxford, OH.

# Taylor, J. Shamloo, F., Fansher, M., Ell, S.W., & Hélie, S. (2017, June). The impact of training methodology on the formation of new categories from existing knowledge. Poster given at *the annual Midwest Cognitive Science Conference*, Oxford, OH.

**Fansher, M.**, & Hélie, S. (2017, April). The effects of aging and Parkinson's disease on trial-by- trial switching between categorization systems. Poster given at the *annual Purdue Psychology Undergraduate Research Conference*, West Lafayette, IN.

Honors and Awards

**Rackham Graduate Student Travel Grant** June 2019

**Purdue Psychology Undergraduate Research Conference** April 2018

Second Place Award for Poster Presentation

**Weinberg Institute of Cognitive Science Award** March 2018

**HHS Undergraduate Research Travel Grant, Purdue University** October 2017

**Purdue Undergraduate Research Grant**  September 2017

**Purdue Psychology Undergraduate Research Conference** April 2017

Second Place Award for Poster Presentation

**Purdue Summer Stays Research Scholarship Program** Summer 2016

Technical Skills

SPSS, Python, PsychoPy, E-Prime, fMRI (secondary user), Collecting Data with Eye Tracking Equipment (Eyelink 1000 Plus)

# Service

**Brains Rule!, University of Michigan** March 2019

Volunteered to teach local 6th graders about neuroscience topics

**Diversity Recruitment Week, University of Michigan** October 2018

*Volunteer*

**CCN Forum Committee, University of Michigan** August 2018 – May 2019

Responsible for introducing speakers at CCN Area meetings

**Undergraduate Research Fair, Purdue University** April 2018

*Organizer*

Organized an event to match prospective undergraduate students in the psychology department with research opportunities.

**CV Workshop, Purdue University** March 2018

*Presenter*

Gave a workshop on how to create a CV for applying to graduate school for prospective undergraduates in the psychology department.

**CSB Research Project, Purdue University** January 2018 - May 2018

*PI*

Used qualitative research methods to study how students make decisions when sanctioning student conduct cases. The data were used to create materials to train incoming CSB members.

**Community Standards Board, Purdue University** October 2015 – May 2018

*CSB Student Board Member*

Attended student conduct conferences to decide student responsibility and determine appropriate sanctions for charged students

# Mentoring

**Michigan Association of Psychological Scholars (MAPS)**

*Co-Chair of Organization* Fall 2019 – Spring 2020

*Mentor* Fall 2018 – Spring 2020

Mentored undergraduate psychology students on how to be involved with research and applying to graduate school.

**Purdue Undergraduates in Psychological Research (PUPR)** August 2017 – May 2018

*President and Founder*

Created a student organization focused on developing the research interests and career goals of psychology undergraduate students

**Peer Success Coach Program, Purdue University** April 2017 – May 2018

*Peer Success Coach*

Assisted undergraduates with creating and reaching academic and personal goals