

## WEBSITE

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## MOBILE

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# MARK SCHURGIN

I am a cognitive psychologist with expertise measuring human behavior using a variety of methodologies. Throughout my research career I have specialized in applying both quantitative and qualitative methods to understand issues of human-computer interaction, response biases, communication strategies and recognition. I thrive on working collaboratively with scientists and engineers from diverse backgrounds to solve shared problems pertaining to human behavior and cognition.

## EDUCATION

### JOHNS HOPKINS UNIVERSITY

Ph.D. 2017, M.A. 2014

Cognitive Psychology

### VASSAR COLLEGE

B.A. Psychology, 2010

### Vision and Memory Lab

University of California, San Diego

Postdoctoral Research Scientist

June 2017 - Present

### Visual Thinking Lab

Johns Hopkins University

Graduate Researcher & Lecturer

August 2012 - May 2017

### Visual Cognition Lab

Northwestern University

Lab Manager, Research Assistant

May 2008 - June 2012

## SKILLS

- Programming/Scripting Languages: MATLAB; HTML; Javascript (Basic)
- Experiment Presentation Software: Psychtoolbox; PsychoPy
- Statistics: SPSS; R (rstan); Multivariate Analyses (Linear & Non-Linear Regressions, Bayesian Modeling, Mixed Effects, Time-Series, ANOVA)
- Research Methods: Experimental Design; Computational Modeling; Eye-Tracking; EEG; Surveys; Amazon Mechanical Turk; Data Mining; User Interviews

## EXPERIENCE

Collected and analyzed EEG to understand how visual long-term memories can replace active storage in short-term memory. Implemented behavioral experiments and surveys online via Amazon MTurk, collecting and analyzing large datasets. Developed a computational framework capable of modeling both short- and long-term memory performance across different tasks and stimuli.

Designed methods to unite vision scientists studying perception, engineers designing object recognition systems, and neuroscientists studying long-term memory. Managed and trained large teams of researchers (15+) to assist in projects. Used eye-tracking and psychophysical modeling to understand the source of potential biases in human-computer interaction.

Collaborated with an international team of researchers to understand eye-movement patterns and how they can be used to predict different emotions in faces. Performed all analyses for the project on a large database of eye-tracking data, created video demonstrations in MATLAB, and designed a Naive Bayes classifier to assist in data interpretation.

## SELECTED PUBLICATIONS

- Schurgin, M. W. & Flombaum, J. I. (2018). Properties of Visual Episodic Memory Following Repeated Encounters with Objects. *Learning & Memory*.
- Schurgin, M. W. & Flombaum, J. I. (2018). Visual Working Memory is More Tolerant Than Visual Long-Term Memory. *Journal of Experimental Psychology: Human Perception and Performance*.
- Schurgin, M. W. & Flombaum, J. I. (2017). Exploiting Core Knowledge for Visual Object Recognition. *Journal of Experimental Psychology: General*, 146(3), 362-375.
- Schurgin, M. W. Nelson, J., Iida, S., Ohira, H., Chiao, J. Y., & Franconeri, S. L. (2014). Eye movements during emotional recognition in faces. *Journal of Vision*, 14(13):14, 1-16.

## COMMUNITY ENGAGEMENT

- Creator & Director, Psychological and Brain Sciences High School Engagement Program (2016-2017)
- Director & Speaker, Brain Awareness Week at Baltimore Polytechnic Institute High School (2013-2017)

## AWARDS

- New Investigator Award, American Psychological Association 2018
- G. Stanley Hall Scholar's Award, Johns Hopkins University 2017
- Walter L. Clark Teaching Award, Johns Hopkins University 2017
- Dean's Teaching Fellowship, Johns Hopkins University 2016-2017
- Walter L. Clark Service Award, Johns Hopkins University 2016
- Robert Waldrop & Dorothy Waldrop Graduate Fellowship, Johns Hopkins University 2013-2015
- Best Talk / Paper Award at the 21<sup>st</sup> Annual OPAM Meeting 2013