Mark Schurgin, PhD

maschurgin@gmail.com | 847.612.5387

Summary

I am a cognitive scientist 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.

Experience

User Experience Researcher, Google
Google Health in Palo Alto CA, February 2019 – Present
- Leveraging technology and brain sciences to create new innovative solutions to improve lives.

Postdoctoral Research Fellow, University of California, San Diego
Vision and Memory lab in La Jolla CA, June 2017 – February 2019
- Implemented behavioral experiments and surveys online via Amazon MTurk, collecting and analyzing large datasets. Developed a computational framework capable of modeling memory performance across different tasks and stimuli.

Graduate Researcher, Johns Hopkins University
Visual Thinking lab in Baltimore MD, August 2012 – May 2017
- Worked on research investigating mechanisms of object recognition and memory. Directed 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.

Lab Manager, Northwestern University
Visual Attention and Cognitive lab in Evanston IL, June 2010 – July 2012
- Collaborated with an international team of researchers to understand eye movement patterns and how they can be used to predict different emotions in faces. Learned how to analyze large datasets of eye-tracking, neuroimaging (EEG/fMRI), and behavioral data (qualitative and quantitative), and created quantitative models to assist in data interpretation.

Education

PhD in **Psychological and Brain Sciences**, The Johns Hopkins University in Baltimore MD, 2017
MA in **Psychological and Brain Sciences**, The Johns Hopkins University in Baltimore MD, 2014
BA in **Psychology**, Vassar College in Poughkeepsie NY, 2010

Skills

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

Selected Publications

Schurgin, M. W., & Brady, T. F. (2019). When "capacity" changes with set size: Ensemble representations support the detection of across-category changes in visual working memory. *Journal of Vision.*

Schurgin, M. W., & Flombaum, J. I. (2018). Properties of Visual Episodic Memory Following Repeated Encounters with Objects. *Learning & Memory, 25*(7), 309-316.

Schurgin, M. W. (2018). Visual Memory, the Long and the Short of it: A Review of Visual Working Memory and Long-Term Memory. *Attention, Perception, & Psychophysics, 80*(5), 1035-1056.

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, 44*(8), 1216-1227.

Schurgin, M. W., & Flombaum, J. I. (2017). Exploiting Core Knowledge for Visual Object Recognition. *Journal of Experimental Psychology: General, 146*(3), 362-375.

Petre, B., Tetrault, P. Mathur, V. A., **Schurgin, M. W.,** Chiao, J. Y., Huang, L., & Apkarian, A. V. (2017). A central mechanism enhances pain perception of noxious thermal stimulus changes. *Scientific reports, 7*(1), 3894.

Schurgin, M. W., & Flombaum, J. I. (2015). Visual long-term memory has weaker fidelity than working memory. *Visual Cognition, 23*(7), 859-862.

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.

Schurgin, M. W., & Flombaum, J. I. (2014). How undistorted spatial memories can produce distorted responses. *Attention, Perception, & Psychophysics, 76*(5), 1371-1380.

Awards

Award	Year
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	2013-2015
Best Talk / Paper Award at the 21st Annual OPAM Meeting	2013

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)