

Craig A. Sanders

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Education & Research Appointments

- 2018 – Postdoctoral Scholar in Psychological Sciences
Vanderbilt University
- 2013 – 2018 Ph.D. in Psychological and Brain Sciences
Indiana University, Bloomington
Minor: Computer Science
- 2009 – 2013 B.S. in Brain, Behavior, and Cognitive Science
University of Michigan, Ann Arbor
Minors: Computer Science and Linguistics

Publications

- Sanders, C.A.** & Nosofsky, R.M. Using Deep-Learning Representations of Complex Natural Stimuli as Input to Psychological Models of Classification. *Proceedings of the 40th Annual Conference of the Cognitive Science Society*, Madison, WI.
- Nosofsky, R.M., **Sanders, C.A.**, McDaniel, M. (2018). A formal psychological model of classification applied to natural-science category Learning. *Current Directions in Psychological Science*, 27(2), 129–135.
- Nosofsky, R.M., **Sanders, C.A.**, McDaniel, M. (2018). Tests of an exemplar-memory model of classification in a high-dimensional natural-science category domain. *Journal of Experimental Psychology: General*, 147(3), 328-353.
- Nosofsky, R.M., **Sanders, C.A.**, Meagher, B.J., & Douglas, B.J. (2017). Toward the development of a feature-space representation for a complex natural category domain. *Behavior Research Methods*, 1-27.
- Nosofsky, R.M., **Sanders, C.A.**, Gerdman, A., Douglas, B., & McDaniel, M. (2017). On learning natural science categories that violate the family-resemblance principle. *Psychological Science*, 28, 104-114.

Posters & Presentations

- Sanders, C.A.** & Nosofsky, R. (2017). Using Deep-Learning Representations of Complex Natural Stimuli as Input to Psychological Models of Classification. Cognitive Lunch, Indiana University, Bloomington.
- Sanders, C.A.**, & Nosofsky, R. (2017). Using deep-learning to automatically extract psychological representations of complex stimuli. Poster presented at the annual meeting of the Psychonomic Society, Vancouver, BC.

- Sanders, C.A.** (2017). Using deep-learning to automatically extract psychological representations of complex stimuli. Gray Matters, Indiana University, Bloomington.
- Nosofsky, R.M & **Sanders, C.A.** (2016). Optimal Training Examples in Real-World Classification Learning. Fifty-eighth Annual Meeting of the Psychonomic Society, Boston, MA.
- Nosofsky, R.M, **Sanders, C.A.**, & Meagher, B. (2016). High-dimensional category representations. Fifty-seventh Annual Meeting of the Psychonomic Society, Boston, MA.
- Nosofsky, R.M, **Sanders, C.A.**, & Meagher, B. (2016). Enhancing learning of natural categories through guidance of formal models of human classification. Forty-ninth Annual Mathematical Psychology Society Meetings, New Brunswick, N.J.
- Nosofsky, R.M, **Sanders, C.A.**, Gerdman, A., Miyatsu, T., & McDaniel, M. (2015). Teaching real-world categories at low and high levels of a hierarchy. Fifty-Sixth Annual Meeting of the Psychonomic Society, Chicago, IL.
- Sanders, C.A.**, & Nosofsky, R. (2015). Category learning and education. Poster presented at 2015 IGERT Research Showcase, Indiana University, Bloomington.
- Sanders, C.A.**, & Nosofsky, R. (2015). Models of category learning applied to education. Poster presented at 2014 Psychological and Brain Sciences Research Symposium, Indiana University, Bloomington.
- Sanders, C.A.**, & Nosofsky, R. (2015). Models of category learning applied to education. Poster presented at 2014 IGERT Research Showcase, Indiana University, Bloomington.
- Miyatsu, T., **Sanders, C.A.**, McDaniel, M., Nosofsky, R. (2014). Optimal Training Sets in Natural Category Learning. Poster presented at the annual meeting of the Psychonomic Society, Long Beach, CA.
- Sanders, C.A.**, Lewis, R., & Shvartsman, M. (2013). A computational model of regressive eye movements in reading. Poster presented at 2013 Psychology Research Forum, University of Michigan, Ann Arbor.

Honors and Awards

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| 2017 | College of Arts and Sciences Fall Travel Award |
| 2017 | Data on the Mind Workshop attendee |
| 2013-2015 | NSF IGERT Traineeship in the Dynamics of Brain-Body-Environment Systems |

Teaching Experience

Spring 2018 Teaching Assistant for Statistical Techniques
Summer 2017 Course Instructor for Foundations in Mathematics and Science: Programming
Spring 2016 Lab Instructor for Research Methods in Psychology
Spring 2016 Guest Lecturer for Social Media Mining

Technical Skills

Programming languages: Python, R, MATLAB, C++, SQL, Stan, Javascript

Machine learning frameworks: Tensorflow, scikit-learn, Keras

Other software: Microsoft Office, SPSS, Photoshop, git, Unix