Exponent®
Engineering & Scientific Consulting

Andrew Sanders, Ph.D.

Senior Scientist | Data Sciences
Los Angeles
+1-310-754-2770 | asanders@exponent.com

Professional Profile

Dr. Andrew Sanders is a Data Scientist at Exponent's Los Angeles office, specializing in advanced data analytics for clinical trials. With over 10 years of experience in psychological research and data science, Dr. Sanders integrates expertise in psychology, statistics, and project management to develop data-driven solutions for human-centered challenges.

Dr. Sanders received his Ph.D. in Psychology from the University of California, Los Angeles in 2021. His doctoral research explored a novel strategy for indexing memory development in infancy using brain activity and behavior. His research demonstrated that visual short-term memory abilities emerge between 6-12 months and that neural alpha band power predicts early memory performance. These findings contributed to the broader field of developmental cognitive neuroscience by enhancing knowledge of how memory systems and brain activity develop in infancy, with implications for understanding cognitive growth and early learning processes.

Prior to joining Exponent, Dr. Sanders served as program director at UCLA David Geffen School of Medicine, where he managed large-scale research initiatives under the Depression Grand Challenge. He developed tools for data collection, organization, and analysis, ensuring IRB compliance and optimizing workflows for clinical studies. His efforts improved data quality and facilitated impactful healthcare insights. Dr. Sanders concurrently led research in the UCLA psychology department, designing assessments to study visual attention and memory in early development. His work identified potential predictors of educational outcomes and advanced understanding of shared brain dynamics in social contexts. Earlier in his career, he served as a research associate at the UCLA Center for Autism Research and Treatment, specializing in electrophysiological and eye-tracking methodologies for Autism Center of Excellence studies.

Dr. Sanders has authored multiple publications in high-impact journals and contributed to significant projects like investigating media’s influence on child development and adolescent mental health. His technical expertise includes advanced statistical modeling, experimental design, and signal processing, using tools like Python, MATLAB, and SQL to generate actionable insights. Dr. Sanders also has extensive teaching experience in topics such as cognitive development, quantitative psychology, and research methods.

Academic Credentials & Professional Honors

Ph.D., Psychology, University of California, Los Angeles (UCLA), 2021

M.A., Psychology, University of California, Los Angeles (UCLA), 2016

B.A., Psychology, University of California, Los Angeles (UCLA), 2012

Dean's Excellence Award, University of California, Los Angeles, 2020

Shephard Ivory Franz Psychology Teaching Assistant Award, University of California, Los Angeles, 2020

Summer Teaching Practicum Program, University of California, Los Angeles, 2020

Graduate Summer Research Fellowship, University of California, Los Angeles, 2019

Diversity Travel Award, Cognitive Development Society, 2017

Graduate Summer Research Mentorship, University of California, Los Angeles, 2016-2017

Perpetual Scholarship, Sigma Pi Upsilon Chapter, 2012

Academic Appointments

Instructor, Department of Psychology, University of California, Los Angeles, 2020

Graduate Teaching Assistant, Department of Psychology, University of California, Los Angeles, 2016-2020

Prior Experience

Program Director, UCLA David Geffen School of Medicine, 2022-2024

Doctoral Researcher, UCLA Baby Lab, 2015-2021

Researcher, Center for Scholars & Storytellers, 2018-2020

Researcher, Common Sense Media, 2018-2019

Staff Research Associate II, UCLA Center for Autism Research and Treatment, 2012-2015

Professional Affiliations

Cognitive Development Society (CDS), Member

Society for Research in Child Development (SRCD), Member

Association of Behavioral and Cognitive Therapies (ABCT), Member

Western Psychological Association (WPA), Member

Publications

Sanders, A. J. (2021). A Multi-Modal Investigation of Infant Visual Short-Term Memory. University of California, Los Angeles.

Sanders, A. J. & Johnson, S. P. (2021). Indexing early visual memory durability in infancy. Child Development, 92(2), e221-e235.

Uhls, Y. T., Felt, L., Wartella, E., & Sanders, A. J. (2021). Investigating Viewership of Season 3 of "13 Reasons Why" and the Mental Wellness of Adolescents: Partially Randomized Preference Trial. JMIR mental health, 8(9), e25782.

McEvoy, K., Hasenstab, K., Senturk, D., Sanders, A. J., & Jeste, S. S. (2015). Physiologic artifacts in resting state oscillations in young children: Methodological considerations for noisy data. Brain Imaging and Behavior, 9(1), 104-114.

Jeste, S. S., Kirkham, N., Senturk, D., Hasenstab, K., Sugar, C., Kupelian, C., Baker, E., Sanders, A. J., Shimizu, C., Norona, A., Paparella, T., Freeman, S., & Johnson, S. P. (2014). Electrophysiological evidence of heterogeneity in visual statistical learning in young children with ASD. Developmental Science, 18(1), 90-105.

Presentations

Sanders, A. J., Felt, L., Wong, K. & Uhls, Y. T. (2019, December). The Power of Storytelling: Media and Positive Character Development. Research report for the Center for Scholars and Storytellers.

Sanders, A. J. & Johnson, S. P. (2019, March). The predictive role of A-not-B performance in assessment of infant oculomotor working memory abilities. Poster presented at the 2019 Society for Research in Child Development Conference. Baltimore, MD.

Sanders, A. J. & Johnson, S. P. (2017, May) Indexing working memory capacity in infancy. Talk given at the Symposium on Cognitive and Language Development, San Diego, CA.

Sanders, A. J. & Johnson, S. P. (2017, October) Indexing visual working memory capacity in infancy. Poster presented at the following conferences: Cognitive Development Society, Portland, OR. International Conference on Learning and Memory, Irvine, CA. International Congress of Infant Studies, Philadelphia, PA.

Sanders, A. J., Marin, A., Jeste, S. S. & Johnson, S. P. (2016, May) Visual statistical learning in infants at high risk for ASD: an electrophysiological analysis. Poster presented at the International Congress of Infant Studies, New Orleans, LA.

Sanders, A. J., Baker, E., Mucchetti, C., Jeste, S. S., Gulsrud, A. & Kasari, C. (2015, May) Face processing in infants demonstrating early signs of ASD. Poster presented at the International Meeting for Autism Research, Salt Lake City, UT.

Sanders, A. J., Humphreys, K. L., Singer, M. J., & Lee, S. S. (2012, November). Sex moderates the association between childhood trauma and risk taking. Poster presented at the 46th annual convention for the Association of Behavioral and Cognitive Therapies, National Harbor, MD.

Singer, M. J., Humphreys, K. L., Sanders, A. J., & Lee, S. S. (2012, November). Coping self-efficacy mediates the association between childhood trauma and ADHD symptoms in adulthood. Poster presented at the 46th annual convention for the Association of Behavioral and Cognitive Therapies, National Harbor, MD.

Singer, M. J., Humphreys, K. L., Chang, E., Von Ritzhoff, A., Saddi, M., Eng, T., Sanders, A. J., & Lee, S. S (2012, May). Comparative validity of postpartum versus current maternal depression in predictions of childhood ADHD symptoms. Poster presented at the 92nd annual convention for the Western Psychological Association, San Francisco, CA.

Project Experience

Managed an NIMH-funded study, providing an evidence-based mental health intervention for college students. Coordinated interdisciplinary teams and used data-driven approaches to improve mental health care access and outcomes in underserved communities.

Developed cognitive tasks to study cognitive development in infants, integrating methods from developmental cognitive neuroscience. Designed experiments to investigate early memory, attention, and learning processes.

Contributed to Autism Center of Excellence studies, focusing on infant siblings of children with autism spectrum disorder and individuals with tuberous sclerosis. Utilized EEG and MRI to investigate early predictors of autism, advancing our understanding of neural and developmental markers.

Conducted research on media's impact on youth, including evaluating the effects of Netflix’s 13 Reasons Why, and the Barbie Dream Gap curriculum in elementary schools. Provided actionable insights for youth-focused storytelling, supported creative processes with child development research, and disseminated findings to broader audiences through publications and newsletters.

Partnered with the Bezos Family Foundation to promote using audiovisual and interactive media to teach children character traits and life skills. Evaluated a character tagging system to help families and educators identify media’s role in character development and conducted focus groups to explore how children’s media use supports positive psychology trait acquisition.