

Exponent®
Engineering & Scientific Consulting

Peter Shlanta, Ph.D.

Managing Scientist | Human Factors
Chicago
+1-312-999-4237 | pshlanta@exponent.com

Professional Profile

Dr. Shlanta is a human factors expert with expertise in cognition, auditory and visual perception, visual attention, distraction, decision making, information processing, and perception response time. Since joining Exponent, Dr. Shlanta has applied his expertise to the investigation of motor vehicle accidents, including those involving vulnerable road users (i.e., pedestrians, cyclists, etc.), slips, trips and falls, and product safety and use. Dr. Shlanta has evaluated driver and pedestrian responses to emergency situations, the influence of distraction, fatigue, and intoxication on vehicle accidents, and the role of advanced driver assistance systems (ADAS) in driver responses and human performance. Dr. Shlanta has also evaluated warning compliance, the adequacy of product instructions / warnings, and user training regarding vehicle technologies and medical devices.

Prior to joining Exponent, Dr. Shlanta's work focused on examining how a reader's visual attention and eye movement patterns relate to their reading fluency and comprehension. Additionally, he examined whether visual attention can be improved through prolonged exposure to visually and perceptually demanding tasks. Dr. Shlanta has expertise using eye tracking technology in human subjects testing.

Academic Credentials & Professional Honors

Ph.D., Applied Experimental Psychology, Central Michigan University, 2021

M.A., Experimental Psychology, Towson University, 2015

B.A., Psychology, Bloomsburg University, 2013

A.A., Psychology, Lehigh Carbon Community College, 2011

Prior Experience

Adjunct Professor, Research Applications, Central Michigan University, 2020

Lab Manager, Central Michigan University Reading Lab, 2018 - 2020

Graduate Instructor, Research Methods & Research Applications, Central Michigan University, 2016-2020

Research Assistant, Central Michigan University Reading Lab, 2015 - 2018

Data Scientist, Acclaro, 2015

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Professional Affiliations

Association for the Advancement of Medical Instrumentation (AAMI), 2025-Present

Human Factors and Ergonomics Society, 2021-Present

Psychonomics Society, 2016-Present

Eastern Psychological Association, 2012-Present

Publications

Grant LH, Chung YW, Diebol JK, Shlanta P, Scully ID. Warnings and multilingual audiences. Human Factors in Design, Engineering, and Computing 2025; 199:1-10.

Scully ID, Shlanta P. Human factors: driver response. In: Truck Accident Litigation. Fourth Edition. Baker AN, Young III DJ (ed), ABA Book Publishing, 2025.

Scully ID, Davis SJ, Shlanta P, Yanes JA, Michaelis K, Cades DM. Looking back on forward collision warnings: A review of perception response time from empirical studies. Proceedings of the Human Factors and Ergonomics Society Annual Meeting. 2024: Advance Online Publication.

Baron LS, Ehrhorn AM, Shlanta P, Ashby J, Bell BA, Adlof SM. Orthographic influences on phonological processing in children with and without reading difficulties: an eye-tracking study. Reading and Writing 2024. doi: 10.1007/s11145-024-10567-y

Davis SJ, Denga R, Shlanta P, Cades DM. Understanding overdriving: Human factors considerations in heavy vehicle headlight visibility and stopping distance. Proceedings of the Human Factors and Ergonomics Society Annual Meeting 2023 Oct; 67(1):1316-1321. doi:10.1177/21695067231194340

Presentations

Scully ID, Davis SJ, Shlanta P, Yanes JA, Michaelis K, Cades DM. Looking back on forward collision warnings: a review of perception response time from empirical studies. Poster presented at the Human Factors and Ergonomics Society Annual Meeting, 2024.

Shlanta P, Ashby J. Influence of covert visual attention on eye movements during silent reading. Poster presented at the Psychonomics Annual conference, Virtual Symposia, 2020.

Baron L, Ehrhorn A, Shlanta P, Bell B, Ashby J, Adlof S. Orthographic influences on phonological awareness in school-aged children with dyslexia, compensated dyslexia, and typical word reading skills. Paper presented at the Society for Scientific Studies of Reading Conferences, Newport Beach, CA, 2020.

Ehrhorn A, Adlof S, Shlanta P, Fisher E, Baron L, Ashby J. Orthographic influences on phonological awareness in school-aged children with developmental language disorders. Paper presented at the American Speech-Language Hearing Association, Orlando, FL, 2019.

Shlanta P, Ashby J. Two word recognition paradigms: Evidence from eye movements. Poster presented at the Psychonomics Annual Conference, Montreal, Quebec, 2019.

Ashby J, Shlanta P, Pagan A, Agauas S. Cooperative activation of orthography and phonology in early word access: Evidence from eye movements. Poster presented at the Psychonomics Annual Conference, New Orleans, LA, 2018.

Ashby J, Shlanta P, Pagan A, Agauas S. Additive effect of word predictability on parafoveal preview benefit: Evidence from eye movements. Poster Presented at the Psychonomics Annual Conference,

Boston, MA, 2016.

Shlanta P, Galupo P. Learning to read on the battlefield: can action video games serve as a training task for enhancing reading capabilities? Poster presented at Towson University Student Research Symposium, Towson, MD, 2015.

Additional Education & Training

Human Factors for Medical Devices training program, AAMI University, 2025