

SHIWALI MOHAN

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[webpages](#) — [CV](#) — [Research Statement](#) — [Diversity Statement](#)

RESEARCH Human-machine interaction; Hybrid AI (Machine Learning + Knowledge Representation & Reasoning) architectures; Computational Cognitive & Behavioral Science; Human Subjects Research.

EMPLOYMENT

2019-present Senior Member of Research Staff, Palo Alto Research Center

2015-2019 Member of Research Staff, Palo Alto Research Center

2014-2015 Postdoctoral Researcher, Palo Alto Research Center

EDUCATION

2009-2015 Doctor of Philosophy, Computer Science & Engineering
University of Michigan, Ann Arbor

2008-2009 Master of Science & Engineering, Computer Science & Engineering
University of Michigan, Ann Arbor

2003-2007 Bachelor of Engineering, Instrumentation & Control Engineering
Netaji Subhas Institute of Technology, Delhi University, New Delhi

SELECTED PROJECTS

2021-2023 Principal Investigator of **DARPA SAIL-ON** (\$4M). Leading development of a hybrid AI system that is robust to post-deployment novelties and domain shifts. Managing a multi-organizational, international, inter-disciplinary team of 7.

2019-2022 Principal Investigator of **DARPA GAILA** (\$1.7M). Leading development of a neuro-cognitive architecture for natural language communication with robots. Managing an inter-disciplinary team of 4.

Research funded by diverse organizations: DARPA, AFOSR, ARPA-E, Xerox, and Kaiser Permanente

REPRESENTATIVE PUBLICATIONS

- Preeti Ramaraj, Charles Ortiz, **Shiwali Mohan**. Unpacking Human Teachers' Intentions for Natural Interactive Task Learning. IEEE International Conference on Robots & Human Interactive Communication. [cs.R0](#), [cs.HC](#)
 - **Shiwali Mohan**. Exploring the Role of Common Model of Cognition in Designing Adaptive Coaching Interactions for Health Behavior Change. ACM Transactions on Interactive Intelligent Systems. 2021. [cs.AI](#), [cs.CY](#), [cs.HC](#)
 - **Shiwali Mohan**, Matt Klenk, Matthew Shreve, Aaron Ang, Kent Evans, John Maxwell. Characterizing an Analogical Concept Memory for Architectures Implementing the Common Model of Cognition. Advances in Cognitive Systems. 2020. [cs.AI](#), [cs.HC](#), [cs.R0](#), [cs.SC](#)
 - **Shiwali Mohan**, Anusha Venkatakrishnan, Andrea Hartzler. Designing an AI Health Coach and Studying its Utility in Promoting Regular Aerobic Exercise. ACM Transactions on Interactive Intelligent Systems. 2020. [cs.AI](#), [cs.HC](#), [cs.CY](#)
 - **Shiwali Mohan**, Hesham Rakha, Matthew Klenk. Acceptable Planning: Influencing Individual Behavior to Reduce Transportation Energy Expenditure of a City. Journal of Artificial Intelligence Research. 2019. [cs.AI](#), [cs.CY](#), [cs.HC](#), [cs.LG](#)
 - John Laird and **Shiwali Mohan**. Learning Fast and Slow: Levels of Learning in General Autonomous Intelligent Agents. In Proceedings of the 32nd AAAI Conference on Artificial Intelligence. AAAI 2018. [Blue Sky Award](#)
- 12 journal articles — 2 book chapters — 16 conference publication — 9 patents pending or granted

PROFESSIONAL ACTIVITIES

- Served as Chair/co-chair, senior and regular program committee, and reviewer for AI, HCI, and Robotics venues.
- Invited for talks & discussions at AI, HCI, Robotics, and other inter-disciplinary venues.
- Mentored graduate and under-graduate students from US and India.