Sheer Karny

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Education

University of California, Berkeley   2020 - 2022
Major: Cognitive Science (B.A.), Minor: Data Science; Graduated with Honors   *Berkeley, CA*

Irvine Valley College   2017-2019
Honors Program   *Irvine, CA*

Research Experience

Junior Specialist - University of California, Irvine   September 2023-Present
Irvine, CA

- Advisor - Mark Steyvers PhD.
- Research focus: Human-AI teaming, Large Language Models, Social and Intuitive AI, Theory of Mind.
- Working in collaboration with Honda Research Institute USA.

Undergraduate Researcher - University of California, Berkeley   May 2021 - August 2022
Berkeley,CA

- Advisors - Richard Ivry PhD., Jonathan Tsay PhD
- Senior Honor's Thesis - *Does healthy aging affect motor adaptation? A meta-analytic approach.*

Publications

Journal Articles: (* denotes equal contribution)

(in-review) Lukas William Mayer*, **Sheer Karny***, Jackie Ayoub, Yuchen Yan, Miao Song, Danyang Tian, Ehsan Moradi-Pari, Mark Steyvers. Human-AI Collaboration: Trade-offs Between Performance and Preference. arXiv. https://arxiv.org/abs/2503.00248

(in-review) Elizabeth Cisneros, **Sheer Karny**, Richard B. Ivry, Jonathan S. Tsay. Differential Aging Effects on Implicit and Explicit Sensorimotor Learning. In bioRxiv (p. 2024.07.02.601091). https://doi.org/10.1101/2024.07.02.601091

Mark Steyvers, Heliodoro Tejeda, Aakriti Kumar, Catarina Belem, **Sheer Karny**, Lukas William Mayer, Xinyue Hu, Padhraic Smyth. What large language models know and what people think they know. Nat Mach Intell (2025). https://doi.org/10.1038/s42256-024-00976-7

Conference Proceedings:

Sheer Karny, Lukas William Mayer, Jackie Ayoub, Miao Song, Haotian Su, Danyang Tian, Ehsan Moradi-Pari, and Mark Steyvers. 2024. Learning with AI Assistance: A Path to Better Task Performance or Dependence?. In Collective Intelligence Conference (CI '24), June 27–28, 2024, Boston, MA, USA. ACM, New York, NY, USA, 8 pages. https://doi.org/10.1145/3643562.3672610

(in-review) **Sheer Karny**, Jackie Ayoub, Miao Song, Danyang Tian, and Mark Steyvers. 2025. Can Explainability Benefit Human-AI Collaboration? Manuscript currently unavailable.

Conference Presentations

"Learning with AI Assistance". Talk at the ACM Collective Intelligence Conference (CI '24); *Human-AI Teaming plenary session.*

Conference Posters

Elizabeth Cisneros, Jonathan Tsay, **Sheer Karny**, Richard Ivry. Differential effect of age on implicit and explicit motor learning processes. Neural Control of Movement Conference (NCM '23), April 18-23, 2023, Victoria, BC, Canada.

Conference Reviewing

CogSci: 2024, 2025

Industry Experience

Data and Logistics Intern - Zadara Storage Inc. — July 2019 - November 2019
Irvine, CA

- Built Zadara's first inventory management platform that tracks the movement of millions of dollars of server equipment internationally. This platform is still used today.

Teaching, Community & Leadership

Workshop Facilitator — March 2023
Tibetan Buddhist Nun's Neuroscience Workshop: Tibetan Library of Works and Archives — *Dharamshala, India*

- Successfully taught a group of 25 Tibetan Buddhist nuns the foundations of neuroscience over the course of 10 days. All teachings were live-translated into Tibetan.

Co-Lead Facilitator — November 2020 – June 2022
Meditation and Mindfulness: Traditional and Neuroscientific Perspectives — *Berkeley, CA*

- Led and improved a course introducing 70 students per semester to meditation practice over the course of 4 semesters.
- Conducted research showing that the course produces persisting benefits to students' well-being.

Technical Skills

Languages: Python, R, JavaScript, HTML, C++

Applications: Jupyter Hub, Firebase, Excel, Blender

Broader technical skills: Machine learning, statistical analysis, cognitive modeling, experimental design, game design, scientific writing, database design, LLM prompting