

Skills

Languages

Python
R
Go
MATLAB
C/C++

Libraries

PyTorch
NumPy
Pandas
SciPy
HuggingFace
TensorFlow
Jax

DB & Querying

Postgres
Presto
Hive
MySQL
SQLite

OS

Linux
macOS
Windows

Cognitive Neuroscience

DataJoint
SPM
Amazon MTurk
Gorilla

Contact

+1 (650) 450-3013
rylanschaeffer@gmail.com
linkedin.com/in/rylanschaeffer
rylanschaeffer.github.io
Google Scholar

Education

Stanford University Computer Science PhD (4.0 GPA); CS 25 Transformers Course Co-Instructor	Sep 2021 - Present
Harvard University Computational Science & Engineering MS (4.0 GPA)	Sep 2019 - Dec 2020
University College London Cognitive Neuroscience MRes (Distinction = British 4.0 GPA)	Sep 2017 - Sep 2018
University of California, Davis Computer Science Engineering BS & Computational Statistics BS	Sep 2011 - Jun 2016

Publications

- Schaeffer*, et al. Are Emergent Abilities of Large Language Models a Mirage? **NeurIPS 2023 (Oral)**.
- Schaeffer**, *Khona**, et al. Self-Supervised Learning of Representations for Space Generates Multi-Modular Grid Cells. **NeurIPS 2023**.
- Schaeffer*, et al. Divergence at the Interpolation Threshold: Identifying, Interpreting & Ablating the Sources of a Deep Learning Puzzle. **Under Review @ ICLR 2024**.
- Schaeffer*, et al. Variance Reduction for Large Language Model Evaluations. **In Prep**.
- Schaeffer*, et al. Correlating and Predicting Human Evaluations of Language Models. **In Prep**.
- Schaeffer*, et al. An Information-Theoretic Understanding of Maximum Manifold Capacity Representations. **In Prep**.
- Schaeffer*, et al. Infinite Associative Memory Models. **In Prep**.
- Schaeffer*, et al. Testing Assumptions Underlying a Unified Theory for the Origin of Grid Cells. **In Prep**.
- Schaeffer*, et al. Beyond Expectations: Model-Driven Amplification of Dataset Biases in Data Feedback Loops. **In Prep**.
- Bricken, *Schaeffer*, et al. Emergence of Sparse Representations from Noise. **ICML 2023**.
- Schaeffer*, et al. Invalid Logic, Equivalent Gains: The Bizarreness of Reasoning in Language Model Prompting. **ICML 2023 Workshop: Knowledge & Logical Reasoning**.
- Schaeffer*, et al. No Free Lunch from Deep Learning in Neuroscience: A Case Study through Models of the Entorhinal-Hippocampal Circuit. **NeurIPS 2022**.
- Schaeffer*, et al. Streaming Inference for Infinite Feature Models. **ICML 2022**.
- Schaeffer*, et al. Streaming Inference for Infinite Non-Stationary Clustering. **CoLLAs 2022**.
- Schaeffer*, et al. Efficient Online Inference for Nonparametric Mixture Models. **UAI 2021**.
- Schaeffer* et al. Reverse-engineering Recurrent Neural Network solutions to a hierarchical inference task for mice. **NeurIPS 2020**.

Professional Experience

Stanford University Graduate Student Researcher (Professor Sanmi Koyejo)	Sep 2021 - Present
Meta Generative AI, Large Language Models Research Science Intern	June 2023 - Present
Massachusetts Institute of Technology Senior Research Associate & Graduate Student Researcher (Professor Ila Fiete)	Jan 2020 - Sep 2023
Google DeepMind, Hierarchical Reinforcement Learning Research Engineer Intern	May 2021 - Jul 2021
Uber, Intelligent Decision Systems Data Scientist	Oct 2018 - Sep 2019