

Jeffrey Wei

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EDUCATION

Yale University — B.S. Physics and Computer Science 2023 – 2027
Relevant Coursework: Machine Learning, Deep Learning on Graphs[†], AI Infra Systems[†], Robot Learning[†], Computer Vision[†], Large Language Models[†], Quantum Information, Optics[†], Quantum Mechanics I[†]
[†] Graduate level

RESEARCH

Yale Department of Applied Physics, advised by [John Sous](#). 2025 –
Studying phase transitions and superconductors using kernel methods and generative models.
Swayable, YC W18. Summer 2025
Studied post-training methods for video understanding and demographic alignment.
Yale Department of Computer Science, advised by [Yongshan Ding](#). 2024
Studied Graph Neural Networks for quantum network optimization.

PUBLICATIONS

Bounded Extrapolation for Phase Transitions with Generalized Regression 2026
[Jeffrey Wei](#), [Manolis Zampetakis](#), [John Sous](#).
International Conference on Machine Learning 2026 · AI4Physics Workshop
What Matters in Clean-Context Autoregressive Video Diffusion 2026
[Jeffrey Wei](#), [Steven Zhou](#).
International Conference on Machine Learning 2026 · F2S Workshop

PRESENTATIONS

American Physical Society Northeast Section Annual Meeting 2026
Senior Thesis Symposium, Yale Undergraduate Physics Department 2026

TEACHING

CPSC 3810 Introduction to Machine Learning — Undergraduate Learning Assistant Spring 2026
CPSC 2020 Mathematical Tools for Computer Science — Undergraduate Learning Assistant Fall 2025
PHYS 2610 Intensive Introductory Physics — Peer Tutor Spring 2025

SERVICE

Reviewer, International Conference on Machine Learning 2026 AI4Physics Workshop 2026

PROJECTS

Superconductors 2026
Post-training a property-conditioned crystal diffusion model to improve superconductor generation.
Filtered Behavior Cloning 2025
Self-training pipeline for vision–language–action policies on LIBERO-90.

AWARDS & HONORS

Yale Dean’s Research Fellowship 2026
Sigma Pi Sigma Physics Honors Society Inductee 2026
Yale Science and Engineering Fellowship 2024
2× National Astronomy Olympiad Qualifier, 3× AIME Qualifier High School