

YIDING SONG (Vincent)

Interested in a theoretical understanding of
intelligence across humans and machines.

 PerceptronV
 [yiding-song-vincent](#)
 yidingsong@college.harvard.edu

Weapon of choice:  (JAX / PyTorch / TensorFlow), Julia

Rarely: C++, , 

EDUCATION	Harvard College — CS (Mind Brain Behaviour) and Physics (Double Conc.) 2024–2028 Researching models of intuitive physics with Felix Sosa at Gershman Lab ; 2025 KRANIUM fellow. <i>Co-President of Computational Neuro Club; AI Project Lead at HUMIC; AI Safety; Mountaineering.</i>
	Harrow School — Academic Scholar; School Monitor 2019–2024 1600 in SAT. 5x A*s in A-Level: Further Mathematics, Mathematics, Physics, Chemistry, Latin. <i>Head of Computer Science and Debating societies, Captain of Climbing, Editor of The Harrovian.</i>
	Hong Kong Academy for Gifted Education — Student 2018–2024 Advanced classes in <i>Cryptography</i> and <i>Artificial Intelligence</i> at Chinese University of Hong Kong.
	St. Paul's Co-Educational College (Hong Kong) — Full Scholarship 2018–2019
EXPERIENCE & PROJECTS	NSF AI Institute for Artificial Intelligence and Fundamental Interactions (IAIFI) at MIT — Researcher & Junior Investigator 2023–2025 Machine learning for astrophysics: “ PAPERCLIP ”, published at COLM 2024 (see Publications).
	Luna Social — Startup Backend Developer (Machine Learning) 2024–2025 Built graph-neural-network-based recommendation for a social interactions startup in stealth mode.
	Research Science Institute (RSI) — IAIFI , MIT Summer 2023 Representing Hong Kong at RSI, I investigated using vision-language models for a synthetic physics-inspired dataset, mentored by Dr Siddharth Mishra-Sharma and Professor Jesse Thaler.
	Global Talent Mentoring — Researcher 2021–Present Mentored by Dr Michail Alifierakis, we conducted research on low-resource machine translation using autoencoders in this selective, global 10-year STEMM mentoring program.
	Graph Structure of Wikipedia — for Gold CREST Award 2023–2024 Led and published research (see Publications) analysing the large-scale graph structure of Wikipedia articles to create a novel learning-path construction algorithm.
	Hackster.io IoT Into the Wild Contest — Helium Award 2022 Led and won prizes for Project Agouti , an AI-powered acoustic monitoring device for conservation.
PUBLICATIONS	Project Ark , by CarbonBase — Startup Intern Easter 2021 Web development using React for a Hong Kong startup using blockchain to crowdfund conservation.
	[1] S. Mishra-Sharma, Y. Song, and J. Thaler, “PAPERCLIP: Associating astronomical observations and natural language with multi-modal models,” in <i>First Conference on Language Modeling</i>, 2024. [Online]. Available: https://openreview.net/forum?id=8TdcXwfNRB. [2] Y. Song and C. H. Leung, “Large-scale analysis of wikipedia’s link structure and its applications in learning path construction,” in <i>2023 IEEE 24th International Conference on Information Reuse and Integration for Data Science (IRI)</i>, Aug. 2023, pp. 254–260. DOI: 10.1109/IRI58017.2023.00051.
AWARDS	British Physics Olympiad — Top Gold 2023–24
	Lab42 Essay Competition on the Principles of Intelligence — Global Top 7 2023
	Maclaurin Mathematical Olympiad — Top 100 in the UK 2022
	CERN Beamline for Schools — Global Shortlist 2021