

# **Yixiao HUANG**

yixiaoh@berkeley.edu | +1 7348828969 | Last updated on December 11, 2025

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## **EDUCATION**

### **University of California, Berkeley**

**Ph.D** in Computer Science Advisor: Prof. Somayeh Sojoudi GPA: 3.92 / 4.0 Aug, 2024 - Jun 2029

**Core courses taken:** Convex Optimization, Theoretical Statistics, High-dimensional Statistics, Random Processes, Stochastic Systems.

### **City University of Hong Kong**

**B.E.** in Electrical Engineering CGPA: 3.98 / 4.3 (**rank 1/91**) Aug, 2019 – Jun, 2023

## **SKILLS AND CAPABILITIES**

**Programming Language:** Python (Advanced), C++ (Advanced), PyTorch (Advanced), Jax (Proficient), SQL (Proficient).

**Language:** Mandarin (Native), English (Proficient, TOEFL: 105 (S:24), GRE: 326), and Cantonese (Proficient).

## **SELECTED WORKS**

9. Samuel Pfrommer, Yixiao Huang, Somayeh Sojoudi, “**Reinforcement Learning for Flow-Matching Policies**”. Preprint, 2025. [pdf]

8. Yixiao Huang\*, Hanlin Zhu\*, Tianyu Guo\*, Jiantao Jiao, Somayeh Sojoudi, Michael I. Jordan, Stuart Russell, Song Mei, “**Generalization or Hallucination? Understanding Out-of-Context Reasoning in Transformers**”. The Thirty-ninth Annual Conference on Neural Information Processing Systems (NeurIPS), 2025. [pdf]

7. Ziheng Cheng\*, Yixiao Huang\*, Hui Xu, Somayeh Sojoudi, Xuandong Zhao, Dawn Song, and Song Mei, “**OVERT: A Benchmark for Over-Refusal Evaluation on Text-to-Image Model**”. The Thirty-ninth Annual Conference on Neural Information Processing Systems Datasets and Benchmarks Track (NeurIPS D&B), 2025. [pdf]

6. Xuyang Zhong, Yixiao Huang, Chen Liu, “**Understanding and Improving Fast Adversarial Training against  $\ell_0$  Bounded Perturbations**”. The Thirty-ninth Annual Conference on Neural Information Processing Systems (NeurIPS), 2025. [pdf]

5. Mingchen Li, Xuechen Zhang, Yixiao Huang, and Samet Oymak. “**On the Power of Convolution Augmented Transformer.**”. The 39th Annual AAAI Conference on Artificial Intelligence (**oral presentation**), 2025. [pdf]

4. Muhammed Emrullah Ildiz, Yixiao Huang, Yingcong Li, Ankit Singh Rawat, and Samet Oymak. “**From Self-Attention to Markov models: Unveiling the Dynamics of Generative Transformers.**”. The 41st International Conference on Machine Learning (ICML), 2024. [pdf]

3. Xuyang Zhong, Yixiao Huang, Chen Liu, “**Towards Efficient Training and Evaluation of Robust Models against  $\ell_0$  Bounded Adversarial Perturbations**”. The 41st International Conference on Machine Learning (ICML), 2024. [pdf]

2. Yingcong Li\*, Yixiao Huang\*, Muhammed Emrullah Ildiz, Ankit Singh Rawat, Samet Oymak, “**Mechanics of Next Token Prediction with Self-Attention**”. The 27th International Conference on Artificial Intelligence and Statistics (AISTATS), 2024. (\* equal contribution) [pdf]

1. Yixiao Huang, Xiaoli WU, Rosa H. M. Chan and Pooled Resource Open-Access ALS Clinical Trials Consortium, “**Stratification and Survival Prediction for Amyotrophic Lateral Sclerosis Patients**”. IEEE-EMBS International Conference on Biomedical and Health Informatics (BHI), 2022, pp. 1-5, doi: 10.1109/BHI56158.2022.9926946. [pdf]

## **HONORS AND AWARDS**

**Tinker Research Grant (\$5,000 compute credits)**

Dec, 2025

**2025 NeurIPS Scholar Award**

Oct, 2025

**2024 ICML Travel Award**

Jun, 2024

**The College of Engineering Dean's Scholarships**

*Maximum of 5 recipients in the College of Engineering every year*

Aug, 2022

**The 46th International Collegiate Programming Contest - Asia Kunming Regional**

*Silver Medal (Rank 40th/697)*

April, 2022

**Chi-Li Pao Foundation Scholarships for Academic Outstanding Students**

*Maximum of 2 recipients in the College of Engineering every year*

Aug, 2021