Tianle Li

EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY

Berkeley, CA

B.S. Electrical Engineering and Computer Science; GPA: 3.75

2021-2025

Data Structure, Algorithms, Computer Architecture, Convex Optimization, Machine Learning, Deep Neural Networks, Deep Reinforcement Learning, Natural Language Processing.

Research Advisor: Ion Stoica

EXPERIENCE

XAI PALO ALTO, CA

Member of Technical Staff

May 2025 - Present

- AI Researcher & Engineer Post-training -> Reasoning -> Reasoning Efficiency
- Grok 4 Fast Co-creator
 - Led Post-training RL Training, co-led distillation datasets for mid-training and SFT, and led offline evaluation.
 - Responsible for iterating and training on the joint mixture from all verticals and domains and launching key RL ablations and recipe studies.
 - Solo built the initial infra to support post-training RL and Reward Model training, which the post-training team relies on for different verticals.
 - Scaled post-training RL by 20x since Grok 4 and achieved over 2x improvement in terms of reasoning efficiency.
 - o Grok 4 Fast is #8 on LMArena, #1 on Search Arena, and #3 on Artificial Analysis.
- Grok 4.1 Co-creator
 - o Currently main post-training RL training contributor
- Grok 4 Foundational Contributor
 - o Built north star production auto eval to predict model performance on Grok.com; babysit with human tutor teams.
 - Developed synthetic RL datasets to improve model tool use efficiency, response presentations, and reasoning length extension.
 - Pushed Grok 4's tool use capabilities, especially on challenging open-ended research questions.

BERKELEY SKY COMPUTING LAB

BERKELEY, CA

Undergrad Researcher

July 2023 - May 2025

Chatbot Arena (Core Contributor)

- An open platform for evaluating LLMs by human preference with millions of monthly users.
- We privately tested GPT-40, Grok 3, Gemini Flash and Pro, Meta Llama 3.2, and more.
- I lead research on human preference and data analysis, focusing on benchmark granularity and preference understanding.
- I built the categories: Hard Prompt, Style Control, Instruction-Following, Math, Creative Writing, and more.
- I'm advised on projects including Search Arena, PDFChat, User leaderboard, and more.

NexusFlow Palo Alto, CA

Machine Learning Engineer

May 2024 - May 2025

Athene-V2-Chat-72B: co-trained the best open weight LLM; post-trained from Qwen 2.5.

• On par with GPT-40 and Claude 3.5 Sonnet on Chatbot Arena (Rank 5), surpass GPT-40 and Llama-3.1-405B on LiveCodeBench, Aider, GPQA, MATH, and more (Nov 2024).

Athene-70B: co-trained the best open weight chat LLM post-trained using Llama-3-70b base model.

- Rank 8 on Chatbot Arena Overall, Rank 5 on Chatbot Arena Hard Prompt (July 2024).
- I co-trained the 70B reward model for aligning Athene using PPO using 32 H100 GPUs.
- I led data curation and evaluation, successfully improved Llama-3 on technical and multilingual queries.

Starling-LM-7B-beta: the world's best 7B chat LLM post-trained from OpenChat.

Best 7B model on Chatbot Arena, on par with Llama-2-70B and Vicuna-33B (Nov 2023). I led the evaluation part.

GOOGLE AI MOUNTAIN VIEW, CA

Student Researcher

Feb 2025 - May 2025

Improve and evaluate reasoning in LLMs. Our evaluation method was published in NAACL.

AMD

San Jose, CA
May 2023 - August 2023

Software Development Intern

• Built Xilinx's Digital Signal Processing library.

SELECTED PUBLICATION (Google Scholar)

- 1. From Crowdsourced Data to High-Quality Benchmarks: Arena-Hard and BenchBuilder (ICML 2025)
 Tianle Li*, Wei-Lin Chiang*, Evan Frick, Lisa Dunlap, Tianhao Wu, Banghua Zhu, Joseph E. Gonzalez, Ion Stoica.
- 2. Prompt-to-Leaderboard (ICML 2025)

Evan Frick*, Connor Chen*, Joseph Tennyson*, Tianle Li*, Wei-Lin Chiang*, Anastasios N. Angelopoulos*, Ion Stoica.

3. How to Evaluate Reward Models for RLHF (ICLR 2025)

Evan Frick, **Tianle Li**, Connor Chen, Wei-Lin Chiang, Anastasios N. Angelopoulos, Jiantao Jiao, Banghua Zhu, Joseph E. Gonzalez, Ion Stoica.

4. Chatbot Arena: An Open Platform for Evaluating LLMs by Human Preference (ICML 2024)

Wei-Lin* Chiang, Lianmin* Zheng, Ying Sheng, Anastasios Nikolas Angelopoulos, **Tianle Li**, Dacheng Li, Banghua Zhu, Hao Zhang, Michael Jordan, Joseph E. Gonzalez, Ion Stoica.

5. <u>LMSYS-Chat-1M: A Large-Scale Real-World LLM Conversation Dataset</u> (ICLR 2024 Spotlight)

Lianmin Zheng*, Wei-Lin Chiang*, Ying Sheng, **Tianle Li**, Siyuan Zhuang, Zhanghao Wu, Yonghao Zhuang, Zhuohan Li, Zi Lin, Eric Xing, Joseph E. Gonzalez, Ion Stoica, Hao Zhang.

6. Project MPG: towards a generalized performance benchmark for LLM capabilities (NAACL 2025)

Lucas Spangher, **Tianle Li**, William F. Arnold, Nick Masiewicki, Xerxes Dotiwalla, Rama Parusmathi, Peter Grabowski, Eugene Ie, Dan Gruhl.

7. Search Arena: Analyzing Search-Augmented LLMs (In Review)

Mihran Miroyan, Tsung-Han Wu, Logan King, **Tianle Li**, Jiayi Pan, Xinyan Hu, Wei-Lin Chiang, Anastasios N. Angelopoulos, Trevor Darrell, Narges Norouzi, Joseph E. Gonzalez

TECHNICAL BLOG

1. Chatbot Arena Categories: Definitions, Methods, and Insights

Tianle Li, Wei-Lin Chiang, Yifan Song, Naman Jain, Lisa Dunlap, Dacheng Li, Evan Frick, Anastasios N. Angelopoulos.

2. Does Style Matter? Disentangling style and substance in Chatbot Arena

Tianle Li*, Anastasios Angelopoulos*, Wei-Lin Chiang*.

3. Athene-70B: Redefining the Boundaries of Post-Training for Open Models

Evan Frick*, Peter Jin*, Tianle Li*, Karthik Ganesan, Jian Zhang, Jiantao Jiao, Banghua Zhu.

4. Introducing Hard Prompts Category in Chatbot Arena

Tianle Li, Wei-Lin Chiang, Lisa Dunlap.

5. What's up with Llama 3? Arena data analysis

Lisa Dunlap, Evan Frick, Tianle Li, Isaac Ong, Joseph E. Gonzalez, Wei-Lin Chiang.

6. Chatbot Arena: New models & Elo system update

Wei-Lin Chiang, Tianle Li, Joseph E. Gonzalez, Ion Stoica.

7. <u>Introducing Athene-V2: Advancing Beyond the Limits of Scaling with Targeted Post-training</u>
The Nexusflow Team.

^{*} means equal contribution.

OPEN SOURCE PROJECT

1. FastChat (Contributor)

38K+ Stars

An open infra for training, serving, and evaluating large language models. Release repo for Vicuna and Chatbot Arena.

2. Arena-Hard-Auto (Lead)

900+ Stars

An automatic evaluation tool for instruction-tuned LLMs, highly correlated with Chatbot Arena.

TEACHING

EECS 127: Convex Optimization for Machine Learning

UC BERKELEY

Teaching Assistant

September 2023 - May 2024

This upper division course offers the theories behind optimization models and their applications, ranging from machine learning and statistics to decision-making and control, with emphasis on numerically tractable problems, such as linear, quadratic, conic, or constrained least-squares optimization.

PERSONAL PROJECT

Speaking in Chess

https://github.com/CodingWithTim/Speaking in Chess

- Pretrained and supervised fine-tuned GPT-2 128M on over 20 million chess games using a custom chess tokenizer.
- Evaluated 6 RL strategies, including 3 novel algorithms: Fictitious Self-Play, Past-Present Q-Iteration, Funnel Searching.
- Achieve over 95% draw rate against StockFish 3000 elo chess engine with gameplay accuracy averaging 90%.

^{*} means equal contribution.