# Dacheng Li

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## **EDUCATION**

## University of California, Berkeley

Jun 2023

Ph.D. in Computer Science

• Advisors: Prof. Ion Stoica and Prof. Joseph Gonzalez. Research: Machine Learning and distributed systems.

#### Carnegie Mellon University

Dec 2021 - Feb 2023

- Research Assistant at Machine Learning Department; Advisors: Prof. Eric P. Xing and Prof. Hao Zhang.
- Research: MPCFormer: fast, performant and private Transformer inference with MPC.

#### Carnegie Mellon University

Aug 2020 - Dec 2021

Master of Science in Machine Learning

- GPA: 3.95/4,0; Advisors: *Prof. Eric P. Xing* and *Prof. Hao Zhang*.
- Research: AMP: Automatically Finding Model Parallel Strategies with Heterogeneity Awareness.

### University of California, San Diego

Sep 2016 - Mar 2020

Bachelor of Science in Computer Science

• GPA: 4.0/4.0, Advisor: Prof. Zhuowen Tu; Research: Dual Contradistinctive Autoencoders.

#### **Publication**

- Li, Dacheng\*, Rulin Shao\*, Anze Xie, Eric P Xing, Joseph E Gonzalez, Ion Stoica, Xuezhe Ma, Hao Zhang. "LightSeq: sequence level parallelism for distributed training of long context transformers", Under submission to ICLR 2024.
- Li, Dacheng\*, Rulin Shao\*, Anze Xie, Ying Sheng, Lianmin Zheng, Joseph E. Gonzalez, Ion Stoica, Xuezhe Ma, and Hao Zhang. "How Long Can Context Length of Open-Source LLMs truly Promise?", Under submission to Neurips 2023 workshop.
- Lianmin Zheng, Wei-Lin Chiang, Ying Sheng, Siyuan Zhuang, Zhanghao Wu, Yonghao Zhuang, Zi Lin, Zhuohan Li, Dacheng Li, Eric. P
   Xing, Hao Zhang, Joseph E. Gonzalez, Ion Stoica. "Judging LLM-as-a-judge with MT-Bench and Chatbot Arena." (NeurIPS 2023)
- Li, Dacheng\*, Rulin Shao\*, Hongyi Wang\*, Han Guo, Eric P. Xing, Hao Zhang, "MPCFormer: fast, performant and private Transformer inference with MPC." (ICLR 2023, spotlight)
- Li, Dacheng, Hongyi Wang, Eric P. Xing, and Hao Zhang. "AMP: Automatically Finding Model Parallel Strategies with Heterogeneity Awareness." (NeurIPS 2022)
- Bian, Song\*, **Dacheng Li\***, Hongyi Wang, Eric P. Xing, Shivaram Venkataraman. "Does compressing activations help model parallel training?" (Under submission to **NeurIPS 2023**)
- Parmar, Gaurav\*, Dacheng Li\*, Kwonjoon Lee\*, and Zhuowen Tu. "Dual contradistinctive generative autoencoder." (CVPR 2021) \*
  denotes equal contribution

#### **INDUSTRY EXPERIENCE**

## LLM evaluation and improvement

Aug 2023 - Present

Google

Student researcher

- · Developed evaluation benchmarks for chatbot evaluation, including multi-turn capability and long-context ability.
- Developed an automatic pipeline to measure chatbot ability, provide feedback using real-world conversations.

# **OPEN-SOURCE CONTRIBUTIONS**

# Member of Large Model Systems Organization (Imsys)

- Core contributor to <u>FastChat</u> and <u>MT-bench</u>, a system for training, serving and evaluating LLM-based chatbots (28.6 K stars).
- Developed FastChat-T5, a compact and commercial friendly chatbot (520K download).
- Developed LongChat and LongEval, a series of long-context chatbots and evaluation benchmark (400 stars).

# **Awards**

#### Amazon Research Awards (Proposal and Project Lead)

Dec 2022