ANZE XIE

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EDUCATION

University of California-San Diego

M.S. in Computer Science & Engineering

CPA: 3.0/4.0

M.S. in Computer Science & Engineering GPA: 3.9/4.0

University of Wisconsin-Madison

B.S. in Computer Science & Statistics & Applied Mathematics

Sept. 2018 - Dec. 2021

GPA: 3.99/4.00

RESEARCH EXPERIENCE

Research Assistant
UCSD, USA
Advisor: Prof. Hao Zhang
Mar. 2023 - Present

Area of Research: Long-context LLM training systems and LLM evaluation

LongChat and LongEval

• Curated a long-context dataset and proposed a finetuning method for extending LLM's context window

• Developed an evaluation toolset to assess LLM's long-context capabilities

• Finetuned LLaMA-7B and LLaMA-13B models and extended the context window by 8x

• Published on Instruction workshop at NeurIPS 2023

DistFlashAttn

- Developed a state-of-the-art memory-efficient attention mechanism optimized for long-context LLM training
- Proposed a re-materialization-aware gradient checkpointing strategy
- Conducted ablation study on the efficiency of contemporary systems, including Megatron-LM, DeepSpeed Ulysses, FlashAttention, and Ring attention.
- Enabled up to 8x longer sequences and achieved a 2x speedup in training
- Published on COLM 2024

GameArena

- Developed an innovative platform that dynamically evaluates LLM reasoning capabilities through live computer games
- Conducted retrospective analysis on LLM reasoning process to reveal specific LLM reasoning capabilities
- Published on ICLR 2025

Research Assistant
UW-Madison, USA
Advisor: Prof. Shivaram Venkataraman, Prof. Theodoros Rekatsinas
Feb. 2021 - May. 2022

Area of Research: Systems for graph learning

Data Mining Over Paleobiology Database

- Extracted a knowledge graph from a paleobiology relational database with SQL and Python
- Trained graph embedding models over the knowledge graph and performed link prediction
- Provided insights on fact discovery for the team's paleobiologist
- Published in VLDB 2021

PUBLICATIONS

Lanxiang Hu*, Qiyu Li*, **Anze Xie***, Nan Jiang, Ion Stoica, Haojian Jin, and Hao Zhang. "GameArena: Evaluating LLM Reasoning through Live Computer Games." (ICLR 2025). Co-first authored.

Dacheng Li*, Rulin Shao*, **Anze Xie**, Eric P. Xing, Joseph E. Gonzalez, Ion Stoica, Xuezhe Ma, and Hao Zhang. "DISTFLASHATTN: Distributed Memory-efficient Attention for Long-context LLMs Training." (COLM 2024).

Dacheng Li*, Rulin Shao*, **Anze Xie**, Ying Sheng, Lianmin Zheng, Joseph E. Gonzalez, Ion Stoica, Xuezhe Ma, and Hao Zhang. "How long can opensource llms truly promise on context length." (Instruction workshop @ NeurIPS 2023).

Anze Xie, Anders Carlsson, Jason Mohoney, Roger Waleffe, Shanan Peters, Theodoros Rekatsinas, and Shivaram Venkataraman. "Demo of marius: a system for large-scale graph embeddings." *Proceedings of the VLDB Endowment* 14, no. 12 (2021): 2759-2762.

OPEN-SOURCE CONTRIBUTIONS

Contributed significantly to LongChat and LongEval, a repository supports training and evaluation of long-context LLMs

Developed the data preprocessing, postprocessing, and rule-based configuration optimizer modules for Marius and Marius GNN, a unified system for large-scale graph-learning tasks

TEACHING EXPERIENCE

Teaching Assistant	UCSD, USA
Scalable Data Systems	Jan. 2024 - Mar. 2024
ML Systems	Mar. 2024 - Jun. 2024

AWARDS

UW-Madison Undergraduate Scholarship for Summer Study, 2020, 2021

UW-Madison Dean's List (7 semesters)

SKILLS

 $\textbf{Languages:} \ \ Python, \ GO, \ C, \ C++, \ Java, \ SQL, \ Matlab, \ R, \ HTML/CSS, \ \LaTeX$

Frameworks and Tools: PyTorch, Tensorflow, Transformers, pytest, tox