GUANZHENG CHEN

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G Google Scholar   ⌘ Github

EDUCATION

National University of Singapore   Singapore
PhD Student (First Year), School of Computing   Aug 2024 - Present
Advisor: Dr. Michael Qizhe Shieh

Sun Yat-sen University   Guangzhou, China
Master Student (Third Year), Computer Science and Engineering   Sep 2021 - Jun 2024

Chongqing University   Chongqing, China
Bachelor Degree, Computer Science   Sep 2017 - Jun 2021

RESEARCH INTERESTS

- **Large Language Model (LLM):**
  - Amplifying the long-context capabilities of LLMs
    - effective and efficient architecture for long-context modeling
    - long-context post-training/alignment
  - Unified multimodal context understanding (and generation)

PUBLICATIONS

- **RAPID: Long Context Inference with Retrieval-Augmented Speculative Decoding**
  Guanzheng Chen*, Qilong Feng*, Jinjie Ni, Xin Li, Michael Qizhe Shieh
  Accepted at Forty-Second International Conference on Machine Learning (***ICML 2025, Spotlight***).

- **LongPO: Long Context Self-Evolution of Large Language Models through Short-to-Long Preference Optimization**
  Guanzheng Chen, Xin Li, Michael Qizhe Shieh, Lidong Bing
  Accepted at The Thirteenth International Conference on Learning Representations (***ICLR 2025***).

- **CLEX: Continuous Length Extrapolation for Large Language Models**
  Guanzheng Chen, Xin Li, Zaiqiao Meng, Shangsong Liang, Lidong Bing
  Accepted at The Twelfth International Conference on Learning Representations (***ICLR 2024***).

- **Mitigating Object Hallucinations in Large Vision-Language Models through Visual Contrastive Decoding**
  Sicong Leng, Hang Zhang, **Guanzheng Chen**, Xin Li, Shijian Lu, Chunyan Miao, Lidong Bing
  Accepted at Conference on Computer Vision and Pattern Recognition 2024 (***CVPR 2024***).

- **Revisiting Parameter-Efficient Tuning: Are We Really There Yet?**
  Guanzheng Chen, Fangyu Liu, Zaiqiao Meng, and Shangsong Liang
  Accepted at The 2022 Conference on Empirical Methods in Natural Language Processing (***EMNLP 2022, Oral Presentation***).

- **Multi-Relational Graph Representation Learning with Bayesian Gaussian Process Network**
  Guanzheng Chen, Jinyuan Fang, Zaiqiao Meng, Qiang Zhang and Shangsong Liang
  Accepted at Thirty-Sixth AAAI Conferene on Artificial Intelligence (***AAAI 2022***).

RESEARCH PROJECTS

- **SeaLLMs: Large Language Models for Southeast Asia**   Singapore & Hangzhou, China
  - **Research Objective**: Worked on a family of pretrained large language models for Southeast Asian (SEA) languages, which mainly consists of Vietnamese, Indonesian, Thai, along with those in English and Chinese. Our customized training process helps enhance our models' ability to understand, respond, and serve communities whose languages are often neglected by previous English-dominant LLMs, while outperforming existing polyglot LLMs, like BLOOM or PolyLM.
  - **Outcome**: The family of SeaLLMs would be released and publicly available, contributing to the community of polyglot LLMs.
  - **Personal Contribution**: Design the strategy for low-quality data filtering, using the FastText and Ken-LM, to prepare a cleaned corpus for the pertaining of SeaLLMs.

- **VideoLLaMA 2 & 3**   Singapore & Hangzhou, China
  - **Research Objective & Outcome**: A series of multimodal foundation models with frontier image and video understanding capacity.
  - **Personal Contribution**: Design the strategy for synthetic caption generation.

RESEARCH EXPERIENCE

Alibaba DAMO Academic   Singapore & Hangzhou, China
Research Intern, Mentor: Dr. Xin Li   Apr 2023 - May 2025

Tencent AI Lab   Shenzhen, China
Research Intern, Mentor: Dr. Yong Dai   Oct 2022 - Feb 2023

University of Glasgow   Glasgow, UK
Research Assistant, Supervisor: Dr. Zaiqiao Meng   Jun 2022 - Sep 2022

HONORS & AWARDS

- National Scholarship (<1%)   Sep 2022
- NUS Research Scholarship   2024 - 2028

TEACHING & REVIEW SERVICE

Teaching Assistant:
- *Machine Learning*, Sun Yat-sen University   Fall 2022
- Instructor: Shangsong Liang

Reviewer:
- ACL Roling Review, Neurips 2024, ICLR 2025, ICML 2025

Courses and Skills

- **Selected Courses:**

- Mathematics: Advanced Mathematics, Linear Algebra, Probability & Mathematical Statistics, Discrete Mathematics, Mathematical and Interdisciplinary Modeling
- Machine Learning: Machine Learning, Pattern Recognition
- Computer Science: Computer Networks, Operating Systems, Computer Composition Principle

- **Programming languages & machine learning tools:**

  C++, Python, Pytorch, Triton

- **Languages:**

  Mandarin, English