GUANZHENG CHEN

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G Google Scholar ⌂ Github

EDUCATION

Sun Yat-sen University   Guangzhou, China

Master Student (Third Year), Computer Science and Engineering   Sep 2021 - Jun 2024

GPA: 90.7/100

Supervisor: Dr. Shangsong Liang

Chongqing University   Chongqing, China

Bachelor Degree, Computer Science   Sep 2017 - Jun 2021

GPA: 3.61 / 4.0

RESEARCH INTERESTS

- **Natural Language Processing:**
  - Enhancing the long-context capability of LLMs.
  - Utilising LLMs by parameter-efficient way.
  - Exploring the scaling ability of linear RNN (state-space model).

- **Knowledge Graph:**
  - Knowledge injection and verification for LLMs.

PUBLICATIONS

- **Guanzheng Chen**, Xin Li, Zaiqiao Meng, Shangsong Liang, Lidong Bing, **CLEX: Continuous Length Extrapolation for Large Language Models**
  Submitted to The Twelfth International Conference on Learning Representations (*ICLR 2024*)
  [**Review Scores: 8, 6, 6, 6 (Avg. 6.50, top 15% so far)**]

- **Guanzheng Chen**, Yong Dai, Fangyu Liu, Zaiqiao Meng, Jiawei Gu, Nan Du and Shangsong Liang, **Autoregressive-Diffusion Resonance Process for Neural Text Generation**
  Submitted to Transactions of the Association for Computational Linguistics (*TACL*)

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

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

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

RESEARCH PROJECTS

- **SeaLLMs: Large Language Models for Southeast Asia**   Hangzhou, China & Singapore
  - **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.

RESEARCH EXPERIENCE

Alibaba DAMO Academic   Hangzhou, China
Research Intern, Mentor: Dr. Xin Li   Apr 2023 - Now

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 for Postgraduates (<1%)   Sep 2022
- SYSU Excellent Student Scholarship (<20%)   Sep 2021 & Sep 2022 & Sep 2023
- CQU Excellent Student Scholarship (<30%)   Sep 2020 & Sep 2019 & Sep 2018

TEACHING & REVIEW SERVICE

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

External Reviewer:
- IJCAI 2023, SIGIR 2023, AAAI 2022, SDM 2022, ACL Roling Review (Nov.), SIGIR 2022

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, Verilog, Tensorflow, Pytorch, LaTeX

- **Languages:**

  Mandarin, English