Mr. Shitou ZHANG

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EDUCATION

The Chinese University of Hong Kong (CUHK)   *Sep. 2022 – Jun. 2023*
Master of Science in Information Engineering
Wuhan University (WHU)   *Sep. 2018 – Jun. 2022*
Bachelor of Science in Archival Science (Information Management)

WORK EXPERIENCE

Research Intern, DeepLang Technology Co. Ltd.
Supervisor: Dr. Gang Chen   *Sep. 2023 – Present*
Duties included: Mixture of Experts (MoE) pretraining

Technical Consultant, FiduciaEdge Technologies Co. Ltd., Hong Kong
Supervisor: Prof. John K. Zao   *Jul. 2023 – Aug. 2023*
Duties included: Federated learning system implementation and deployment

Research Assistant, Key Laboratory of Archival Intelligent Development and Service, NAAC
Supervisor: Prof. Ping Wang   *Jun. 2023 – Jul. 2023*
Duties included: Domain-oriented LLM development and deployment

Research Assistant, Wuhan University
Supervisor: Dr. Zuchao Li   *Mar. 2023 – Jun. 2023*
Duties included: LLM pre-training

PROJECT EXPERIENCE

- **LingoWhale**   *Sep. 2023 – Present*
  Description: Developed LingoWhale, a series of general backbone LLMs with a focus on Chinese language processing; Achieved leading results in LLM benchmarks, including MMLU and C-eval; Open-sourced LingoWhale-8B, available on 🤗.

- **BATGPT**   *Mar. 2023 – Present*
  Description: Pre-trained BATGPT, a bilingual LLM available in various sizes: 15B, 30B, and 70B; Deployed as the foundation model of Powthink's product services in production environment; Released the 15B v1.0 version for public use, available on 🤗.

- **ArcGPT**   *Jun. 2023 – Sep. 2023*
  Description: Led the development of ArcGPT, a domain-specific LLM optimized for archival applications.

- **FL on fECP**   *Jul. 2023 – Aug. 2023*
  Description: Re-implemented and optimized ClusterFL using Flower; Deployed on Vecow Vhub (arm-based edge AI computing platform); Integrated FL systems with fECP (Trusted Execution Environment).

PUBLICATIONS

[1] <u>Shitou Zhang</u>, Zuchao Li, Xingshen Liu, Liming Yang, Ping Wang. **"ArcMMLU: A Library and Information Science Benchmark for Large Language Models"**. 2311.18658.pdf (arxiv.org)

[2] <u>Shitou Zhang</u>, Siyuan Peng, Ping Wang, Jingrui Hou. **"Archives Meet GPT: A Pilot Study on Enhancing Archival Workflows with Large Language Models"**. Accepted by iConference 2024.

[3] <u>Shitou Zhang</u>, Jingrui Hou, Siyuan Peng, Zuchao Li, Qibiao Hu, Ping Wang. **"ArcGPT: A Large Language Model Tailored for Real-world Archival Applications"**. 2307.14852.pdf (arxiv.org)

[4] Zuchao Li, <u>Shitou Zhang</u>, Hai Zhao[*], Yifei Yang, Dongjie Yang. **"BATGPT: A Bidirectional Autoregressive Talker from Generative Pre-trained Transformer"**. 2307.00360.pdf (arxiv.org)

[5] <u>Shitou Zhang</u>, Ping Wang[*], Zuchao Li[*], Jingrui Hou. **"Enhancing Ancient Chinese Understanding with Derived Noisy Syntax Trees"**. Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (Volume 4: Student Research Workshop). 2023.acl-srw.15.pdf (aclanthology.org)

MANUSCRIPTS

[1] <u>Shitou Zhang</u>, Ping Wang[*], Zuchao Li[*], Jingrui Hou, Qibiao Hu. **"Confidence-based Syntax Encoding Network for Better Ancient Chinese Understanding"**. *Information Processing & Management (IPM), Under review.*

[2] Jiajia Li, Letian Peng, <u>Shitou Zhang</u>, Ping Wang, Zuchao Li, Hai Zhao. **"Semantics-Preserved Distortion for Personal Privacy Protection in Information Management"**. *Expert Systems with Applications (ESWA), Under review.*

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