# Shitou Zhang (张石头)

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Street, Bao'an District, Shenzhen, Guangdong Province, China Date of Birth: Sep. 20th, 2000

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### **Academic Qualification**

2023 MSc, Information Engineering

the Chinese University of Hong Kong

Homepage: stzhang-patrick.github.io

Language: English and Chinese

Advisor: Prof. J.K. Zao

2022 B.M, Information Management (Archival Science Option)

Wuhan University

Advisor: Prof. P. Wang

Thesis: Research on Archival Open Access Identification Based on End-to-end Text Classification Methods

Honor: Outstanding Undergraduate Thesis

## **Professional Affiliation**

2020 Member Key Laboratory of Archival Intelligent Development

and Service, NAAC, Wuhan

#### **Professional Practice**

2023/09 - Present	Research Intern	DeepLang Technology Co. Ltd., Beijing
2023/07 - 2023/08	<b>Technical Consultant</b>	FiduciaEdge Technologies Co. Ltd., Hong Kong
2023/06 - 2023/07	Research Assistant	Key Laboratory of Archival Intelligent Development
		and Service, NAAC, Wuhan
2023/03 - 2023/06	Research Assistant	Computer Science Dept. Wuhan University

### **Project Experience**

2023/09 - Present LingoWhale-MoE

Role: Key Contributor

Overview: Spearheaded the ongoing pretraining of the LingoWhale-MoE series of LLMs using sparse upcycling. Focused on evolving the model's capabilities with sparse

architecture and dynamic routing.

2023/03 - Present **BatGPT** 

Role: Key Contributor

Overview: Engaged int the implementation and pretraining of BatGPT—a robust series of foundation LLMs. Successfully deployed BatGPT in production environment as the

backbone model for Powthink's AI services.

2023/06 - 2023/09 **ArcGPT** 

Role: Project Leader

Description: Led the development of ArcGPT—a domain-specific LLM tailored for archival applications. The model has been successfully adopted by National Archives

Administration of China.

Role: Key Contributor

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Overview: Engaged in re-implementation and optimization of ClusterFL utilizing the Flower framework. This project focused on enhancing federated learning systems for more efficient and scalable deployments, particularly in edge computing platforms.

2020/09 - 2022/09

## **Intelligent Archival Services**

Role: Key Contributor

Overview: Engaged in the development of AI-driven assistants designed to improve archival management. The project's solution for archival open-access identification was successfully adopted by Provincial Archives Administration of Hubei.

#### **Publications**

- 1. Shitou Zhang\*, Ping Wang, Zuchao Li, Jingrui Hou, and Qibiao Hu. "Confidence-based Syntax Encoding Network for Better Ancient Chinese Understanding." Accepted by Information Processing & Management, to appear.
- 2. Shitou Zhang\*, Zuchao Li, Xingshen Liu, Liming Yang, and Ping Wang. "ArcMMLU: A Library and Information Science Benchmark for Large Language Models." arXiv preprint arXiv:2311.18658 (2023).
- 3. Shitou Zhang\*, Siyuan Peng, Ping Wang, and Jingrui Hou. "Archives Meet GPT: A Pilot Study on Enhancing Archival Workflows with Large Language Models." Accepted by International Conference on Information 2024, to appear.
- 4. Shitou Zhang\*, Jingrui Hou, Siyuan Peng, Zuchao Li, Qibiao Hu, and Ping Wang. "ArcGPT: A Large Language Model Tailored for Real-world Archival Applications." arXiv preprint arXiv:2307.14852 (2023).
- 5. Zuchao Li, Shitou Zhang\*, Hai Zhao, Yifei Yang, and Dongjie Yang. "BatGPT: A Bidirectional Autoregessive Talker from Generative Pre-trained Transformer." arXiv preprint arXiv:2307.00360 (2023).
- 6. Shitou Zhang\*, Ping Wang, Zuchao Li, and Jingrui Hou. 2023. "Enhancing Ancient Chinese Understanding with Derived Noisy Syntax Trees." In Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (Volume 4: Student Research Workshop), pages 83–92, Toronto, Canada. Association for Computational Linguistics.

# **Manuscripts**

1. Jiajia Li, Letian Peng, Shitou Zhang\*, Ping Wang, Zuchao Li, and Hai Zhao. "Semantics-Preserved Distortion for Personal Privacy Protection in Information Management." Expert Systems with Applications, under review.