Zijie Zhou

CONTACT INFORMATION	College of Artificial Intelligence China University of Petroleum, Beijing No.18, Fuxue Road, Changping District, Beijing, China	*Voice:* (+86) 188 0102 9366 *E-mail:* zhouzijie67@outlook.com

RESEARCH INTERESTS

Large language models, natural language processing, AI for social sciences, multi-agent systems

EDUCATION

China University of Petroleum, Beijing, Beijing, China

> M.S., Artificial Intelligence, August 2023 (expected graduation date: June 2026)

China University of Petroleum, Beijing, Beijing, China

> B.A., Artificial Intelligence, June, 2023

HONORS AND AWARDS

Graduate Study Scholarship, 2023

Undergraduate Study Scholarship, 2022

Technology Innovation Advanced Individual Award, 2022 and 2023

Honorable Mention, Interdisciplinary Contest In Modeling, 2021

Outstanding Undergraduate Student Cadre, 2020

ACADEMIC EXPERIENCE

China University of Petroleum, Beijing, Beijing, China

Application of Large Language Models **May, 2024 - present**
Designed and fine-tuned multiple large language models for applications in campus services and party-building knowledge Q&A systems. Customized training significantly enhanced the models accuracy in answering questions and improved service efficiency.

Intelligent Control of Wellbore Trajectory **January, 2023 - May, 2024**
Developed and optimized a real-time decision-making algorithm based on LWD data, improving the accuracy of wellbore trajectory tracking. Pioneered and validated an innovative intelligent drilling navigation algorithm, enhancing obstacle avoidance during the drilling process. Additionally, built a wellbore trajectory simulation system to support algorithm validation and optimization.

Teaching Assistant **August, 2023 - present**
Head teaching assistant. Duties included shared administrative responsibilities with faculty instructor, fielding of all student inquiries, and oversight of undergraduate student teaching assistants and graders.

- Principle of artificial intelligence, Fall 2023 and Fall 2024.
- Python for data analysis, Spring 2024.

PAPERS IN PREPARATION

Zhou, H., Zhu, D., Zhou, Z., Dai, X. A Novel Directional Drilling Decision Method Based on 3D Spatial Wide-Angle Detection Mechanism.

Zhao, Y., Zhu, D., Wang, F., Dai, X., Jiao, H., Zhou, Z. An Intelligent Drilling Guide Algorithm Design Framework Based on High Interactive Learning Mechanism.

CONFERENCE PRESENTATIONS	Wang, L., Zhou, Z., Shi, G., Guo, J., Liu, Z. (2024). Small Object Detection Based on Bidirectional Feature Fusion and Multi-scale Distillation. In: Wand, M., Malinovsk, K., Schmidhuber, J., Tetko, I.V. (eds) Artificial Neural Networks and Machine Learning ICANN 2024. ICANN 2024. Lecture Notes in Computer Science, vol 15017. Springer, Cham.

PROFESSIONAL EXPERIENCE

Innovation Business Center of Yidu Cloud, Beijing, China

Algorithm Intern   **February, 2023 - August, 2023**

Collected and analyzed disease prediction data; applied machine learning to forecast patient outcomes; reproduced research findings and built a patient records database.

PERCENT Technology, International Business Department, Beijing, China

Machine Learning Research Assistant   **August, 2022 - February, 2023**

Standardized multilingual datasets and optimized Chinese-English sentiment models; improved machine translation models and developed a sentiment classification framework.

Kunlun Digital Technology, Sales and Retail Business Department, Beijing, China

Computer Vision Intern   **May, 2022 - August, 2022**

Conducted AI video recognition research and authored a 24-page report; designed a cashback scenario for gas station retail stores, enhancing customer engagement.

COMPUTER SKILLS

- Machine Learning: Deployment and fine-tuning of large language models (LLaMA, GLM).
- Programming Languages: Python, C/C++, with experience in NumPy, Matplotlib, and Pandas.
- Algorithms: Knowledge of neural networks, optimization, and model application in real-world tasks.
- Tools: Git, Docker, LangChain, ChatGPT, Microsoft Office, LaTeX.
- Operating Systems: Unix/Linux, MacOS, Windows.