Zhidong Zhang

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EDUCATION

Wuhan University, Wuhan, China   *Sep.2021 - Jun.2025*
B.Eng. Software Engineering   GPA: 3.73/4.00 (88.93/100)

Courses: Data Structures & Algorithms, Machine Learning and Pattern Recognition, Discrete Math, Linear Algebra, Probability & Statistics, General Psychology, Cognitive Psychology, etc.

RESEARCH EXPERIENCE

Large Model Based Crossmodal Chinese Poetry Creation   *Jul.2024 - Oct.2024*
Wuhan University | Advisor: Dr. Weiping Zhu   *Wuhan, China*

- **System Development:** Led the development of modules supporting cross-modal text and image inputs.
- **Optimization Evaluation:** Enhanced iterative optimization mechanisms and evaluated poem quality across three input modalities and optimization on three poem sets.

Data Analysis on Forward Flow Task   *Apr.2024 - Jun.2024*
Beijing Normal University | Advisor: Prof. Yunzhe Liu   *Remote*

- **Data Prepocessing:** Pre-processed word data for forward flow tasks, inserting seed words, removing duplicates, and generating embeddings.
- **Correlation Analysis:** Analyzed the correlation between participants' scale scores and statistical indicators, including sequence length, embedding similarity, optimality divergence, semantic distance range, and "forward flow".

PROJECT EXPERIENCE

The Working Memory Capacity of RNN models   *Jul.2024 - Aug.2024*
Computational Neuroscience Program, Neuromatch Academy(NMA)

- **Memory Decoding:** Built a neural network to decode firing rates into previous inputs, computing correlations to assess the WM capacity of RNN models.
- **Parameter Exploration:** Led the exploration of effects of parameter simulating biological factors and interactions on WM capacity.

LLM-based Interactive Chinese Poetry Learning Assistant   *Sep.2023 - Oct.2023*
2023 Large Models Scene Innovation Competition - Innovation Award (Top 8%)

- **Interface Design:** Designed the web interface and user-specific prompts for image production and text interaction.
- **Module Development:** Developed modules incorporating online search and file analysis based on Retrieval-Augmented Generation (RAG).

PUBLICATIONS

*Equally authorship

L. Yang*, **Z. Zhang***, S. Liu, X. Dai, D. Zhou, and D. Cui, "Large Model Based Crossmodal Chinese Poetry Creation," in 2024 IEEE Smart World Congress (SWC), accepted.

HONORS & AWARDS

2021 Excellent Student Scholarship Third-class Reward (1,000 CNY)
2021 Excellent Student Cadre
2021 Advanced Individual of Social Work

SKILLS

Data Analysis: Machine Learning, Deep Learning, EEG processing, Digital signal processing
Programming: Python, C/C++
Tools: Unix Shell, VS Code, Git/GitHub, Zotero
Language: English(IELTS 7.0), Mandarin(Native)