

# Zhihui Yang

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## EDUCATION

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| <b>Beijing Normal University</b> , Beijing, China<br><i>M.A. Linguistics and Applied Linguistics (Computational Linguistics)</i>   | Aug. 2023 – Jul. 2026 (Expected)<br>Current GPA: 3.8/4.0 |
| • <b>Selected Coursework:</b> Object-oriented Programming (Python) (98), Natural Language Processing (92), Introduction to Chinese Information Processing (88), Research Methods in Linguistics (89), Lexical Semantics (92) |  |
| • <b>Awards:</b> First-Class Academic Scholarship (Beijing Normal University)  |  |

  

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| <b>Soochow University</b> , Suzhou, China<br><i>B.A. Chinese Language and Literature (National Experimental Class)</i><br><i>Micro-credential in Intelligent Computing and Frontier Applications</i>        | Sept. 2019 – Jun. 2023<br>GPA: 3.9/4.0 (Top 3%)<br>Average Score: 91/100 |
| • <b>Selected Coursework:</b> Introduction to Linguistics (100), Language, Mind, and Brain (95), Logic of Natural Language (94), Neural Networks and Deep Learning (89), Visual Information Processing (95) |  |
| • <b>Awards:</b> National Scholarship (Top 1%), Merit Student of Jiangsu Province (Top 1%), Outstanding Graduate, First-Class Academic Scholarship, Outstanding Student Leader (Soochow University)         |  |

## RESEARCH INTERESTS

Intersection of computational linguistics and cognitive science; NLP for language and cultural studies

## PUBLICATIONS AND CONFERENCES

1. Yang, Z., Wang, Y., Mo, K., Zhao, Z., & Hu, R. (2025). Does Visual Grounding Enhance the Understanding of Embodied Knowledge in Large Language Models? In *Findings of the Association for Computational Linguistics: EMNLP 2025*, pages 16960–16978, Suzhou, China. Association for Computational Linguistics. <https://arxiv.org/abs/2510.16924>
2. Yang, Z., Mo, K., & Hu, R. (2024). The automatic measurement of elegance in Chinese text based on pre-trained language models. *15th International Conference in Evolutionary Linguistics*, Changsha, China. (Presented as a poster; full manuscript in preparation) [\[Poster\]](#)
3. Li, H., Yang, Z., & Hu, R. (2025). System Report for Task 4 of CCL25-Eval: Research on Factivity Inference Method Based on Multi-Strategy Knowledge Fusion. *The 24th China National Conference on Computational Linguistics: Evaluation Tasks*, Jinan, China. (Accepted) [\[Paper\]](#)
  - Awarded Second Prize in *CCL25-Eval-Task 4: The First Evaluation on Chinese Factivity Inference (FIE 2025)* (Registered Teams: 218; Result Submissions: 70)

## RESEARCH EXPERIENCES

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| <b>Diagnosing Embodied Knowledge in Large Language Models</b>   Project Leader<br>Advisor: Prof. Renfen Hu | Nov. 2023 – Present |
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- Proposed a psychology-grounded embodied knowledge benchmark encompassing six sensory modalities (vision, audition, touch, gustation, olfaction, and interoception).
- Constructed SensoryVec with 349 sensory adjective triples for vector comparison and PerceptualQA with 1,400 questions across nine perceptual subtasks to evaluate models' embodied knowledge understanding.
- Evaluated 30 text-only and vision-language models, revealing that vision-language models show no systematic advantage over text-only models in embodied knowledge understanding.
- Published as first author in EMNLP 2025 Findings.

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| <b>Automatic Measurement of Elegance in Chinese Text</b>   Project Leader<br>Advisor: Prof. Renfen Hu   | Mar. 2024 – Present |
| • Constructed a multi-genre corpus (literature, news, xiangsheng) and developed an elegance test set.   |                     |
| • Developed an automatic measurement metric for textual elegance leveraging perplexities extracted from GPT-2 trained on Classical and Modern Chinese corpora, achieving 95.67% accuracy. |                     |

- Analyzed elegance patterns in the Shenbao corpus (1872–1949), quantifying changes in the elegance of Chinese register before and after the Vernacular Language Movement.
- Presented as first author at the 15th International Conference on Evolutionary Linguistics (poster); full paper in preparation.

#### **Chinese Factivity Inference via Multi-Strategy Knowledge Fusion | Project Member**

Feb. 2025 – Aug. 2025

**Advisor:** Prof. Renfen Hu

- Co-developed a multi-source knowledge base, including verb type lists, verb usages with examples, and negation types with illustrative cases.
- Co-designed prompt strategies leveraging chain-of-thought reasoning and few-shot learning to enhance factivity inference accuracy.
- Applied model ensemble techniques to improve system stability and prediction accuracy.
- Awarded Second Prize in CCL25-Eval-Task 4: The First Evaluation on Chinese Factivity Inference (FIE 2025).

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## **INTERNSHIP EXPERIENCES**

### **NLP Algorithm Engineer for AI Safety, Tencent, Technology and Engineering Group** Jan. 2025 – Jun. 2025

- Built and deployed a dual-path moderation model with adaptive thresholds and iterative augmentation, improving safe-content separation from 57% to 70% at 99.8%/97.1% precision (two sources), processing 40K comments daily.
- Built and deployed a black market detection model leveraging transfer learning to overcome the cold-start problem, achieving 97.06% recall and 52.72% precision, currently processing 43K comments per day.
- Supported model safety enhancement by extracting daily data via SQL and conducting inference using safety classification models, delivering 150M samples for model refinement.

### **AI Strategy Product Manager (TTS), Xiaomi, Technology Committee**

Aug. 2024 – Oct. 2024

- Analyzed annotated Text-to-Speech (TTS) bad cases and conducted MOS evaluations and user surveys to assess cross-vendor in-car TTS human-likeness and capture user preferences, delivering internal testing reports.
- Built an objective evaluation framework for ultra-humanlike TTS and standardized annotation formats.

### **Linguistic Specialist, ByteDance, AI Lab**

Apr. 2023 – Aug. 2023

- **Dialog System (NLP)**
  - Built the annotation team for dialog data cleaning and creation from scratch, directing daily operations to ensure high-quality output and on-schedule delivery of production targets.
  - Conducted daily error analysis to adjust data categorization and production priorities, delivering 85K dialogues that enhanced Tomato Novel's chatbot's multi-turn capability, persona consistency, and knowledge coverage.
- **Speech Synthesis (TTS)**
  - Managed the entire data production pipeline for five voicebanks, delivering 30K high-quality voice-text annotations for Jianying, Tomato Novel audiobooks, and other TTS scenarios to support new voice creation.
  - Designed and implemented a paralinguistic annotation production workflow from scratch, delivering several thousand paralinguistic annotations and establishing a stable, repeatable process for future data production.

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## **SKILLS**

**Languages:** Mandarin (Native), English (Advanced)

**Programming and Tools:** Python, Pytorch, Praat, Linux