Zhihui Yang

ererdewubudesi.github.io | yangzhihui@mail.bnu.edu.cn | (+86) 173-0518-3317

Education

Beijing Normal University, Beijing, China — Aug. 2023 – Jul. 2026 (Expected)
M.A. Linguistics and Applied Linguistics (Computational Linguistics) — *Current GPA: 3.8/4.0*

- **Selected Coursework:** Object-oriented Programming (Python), Natural Language Processing, Introduction to Chinese Information Processing, Research Methods in Linguistics, Lexical Semantics
- **Awards:** First-Class Academic Scholarship of Beijing Normal University

Soochow University, Suzhou, China — Sept. 2019 – Jun. 2023
B.A. Chinese Language and Literature (National Experimental Class) — *GPA: 3.9/4.0 (Top 3%)*
Micro-credential in Intelligent Computing and Frontier Applications — *Average Score: 91/100*

- **Selected Coursework:** Introduction to Linguistics, Language, Mind, and Brain, Logic of Natural Language, Machine Learning, Neural Networks and Deep Learning, Visual Information Processing
- **Awards:** National Scholarship (Top 1%), Merit Student of Jiangsu Province (Top 1%), Soochow University Outstanding Graduate

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*, Suzhou, China. Association for Computational Linguistics. (Accepted)
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.
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)
   - **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

Diagnosing Embodied Knowledge in Large Language Models | *Project Leader* — Nov. 2023 – Present
Advisor: Prof. Renfen Hu

- 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.

Automatic Measurement of Elegance in Chinese Text | *Project Leader* — Mar. 2024 – Present
Advisor: Prof. Renfen Hu

- 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).

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).

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)**
  - Owned 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.

Skills

Languages: Mandarin (Native), English (Advanced)
Programming and Tools: Python, Pytorch, Praat, Linux