Yu He

Nanjing University, B.Eng. in Intelligent Software Engineering

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EDUCATION

B.Eng. in Intelligent Software Engineering (Expected Jun 2027) 2023.09 – Present
Nanjing University, Nanjing, China

- **GPA:** 88/100 (**Top 10%** in major)
- **Selected Coursework:** Data Structures and Algorithms (**90**), Computer Architecture (**97**), Computer Networks (**92**), Operating Systems (**92**), Advanced C++ Programming (**92**), Introduction to Artificial Intelligence (**98**), Fundamentals of Data Management (**93**), Internet Computing (**94**)

RESEARCH AFFILIATION

Nanjing University, Research Assistant 2025.03 – Present
Advisor: Prof. Ke Xu

- Worked on AI-driven interactive visualization systems, focusing on complex data exploration, multimodal narrative design, and data-centric methods that enhance human involvement in model training.

RESEARCH INTERESTS

- **Visualization and Visual Analytics:** Designing intuitive and scalable visual interfaces for complex data exploration and knowledge discovery.
- **Human–Computer Interaction (HCI):** Developing interactive systems that enhance human understanding, collaboration, and decision-making in data-rich environments.
- **AI-Driven Big Data Analytics:** Integrating machine learning and large-scale data mining to uncover patterns and actionable insights from multimodal datasets.

RESEARCH EXPERIENCES

NetworkCanvas: Supporting Progressive Network Visualization Exploration via Adaptive Recommendation 2025.03 – 2025.09

The ACM CHI Conference on Human Factors in Computing Systems (CHI 2026) · *Under Review*
Visualization Recommendation · *Interactive System Design* · *User Experience*

- **Initiated and co-designed** the core idea and system architecture for an adaptive visualization platform supporting progressive data exploration and intelligent guidance.
- **Implemented core visualization components and feedback modules**, collaborating on dataset integration, user interaction design, and prototype optimization.
- **Drove manuscript development**, including conceptual framing, figure design, and experimental documentation.

Multimodal Analysis of News Videos: Event-based Visual Summarization over Serial Broadcasts 2025.05 – 2025.09

The ACM CHI Conference on Human Factors in Computing Systems (CHI 2026) · *Under Review*
Multimodal Visualization · *Interactive Analysis* · *Human–AI Collaboration*

- **Took the lead in system implementation**, developing multimodal data processing and interaction modules that bridge textual analysis with visual analytics for event-level exploration.
- **Designed data modeling and visualization logic** for event filtering, overview construction, and coordinated view communication to enhance user exploration efficiency.
- **Contributed extensively to the paper writing and user evaluation**, including designing user studies, analyzing results, and producing technical figures and illustrations.

ESSR: Ebbnighaus Sampler and Scheduler Brought LLM's Memory Back 2025.07 – 2025.10

The 64th Annual Meeting of the Association for Computational Linguistics (ACL 2026) · Under Review
Large Language Models · Continual Learning · Cognitive-inspired Framework

- **Led theoretical modeling** of long-term knowledge retention dynamics in large language models and contributed to the formulation of adaptive training strategies for continual fine-tuning.
- **Designed and implemented** the replay scheduling mechanism and integrated multiple datasets and pre-trained models for comparative evaluation under different learning paradigms.
- **Authored key sections** of the manuscript, including framework description, experimental methodology, and analytical discussion; visualized results and structured supplementary materials.

HONORS & AWARDS

Meritorious Winner, Mathematical Contest in Modeling (MCM) 2025.05
Awarded by the Consortium for Mathematics and Its Applications (COMAP), USA.

National Third Prize, China Collegiate Innovation and Invention Competition 2024.12
Awarded by the China Information Association.

TECHNICAL SKILLS

Programming: TypeScript, Python, Java, C++, JavaScript, SQL
Frameworks & Tools: React, Vue3, TailwindCSS, Element Plus, PyTorch, Spring Boot, Webpack, Git/GitHub
Visualization: G6.js, D3.js, ECharts
Languages: English (Fluent), Chinese (Native)