

Yang Ziyi

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EDUCATION

National University of Singapore <i>Master of Science in Computer Engineering</i>	Aug 2026 – Dec 2027 (Expected) <i>Singapore</i>
Nanyang Technological University <i>Bachelor of Engineering in Electrical and Electronic Engineering</i> - Honours (Highest Distinction) GPA: 4.60/5 - Specialisation in Data Analysis & Machine Learning	Jul 2023 – June 2026 <i>Singapore</i>
Virginia Polytechnic Institute and State University <i>Semester Exchange</i> Dean's List Spring 2025	Jan 2025 – May 2025 <i>Blacksburg, VA, US</i>

PUBLICATIONS

- Yang, Z.**, Nguyen, T.-S., Nguyen, T. A., & Chen, L. (2026). GGC: Selective Query Correction for Reliable Text-to-SPARQL Generation. Available at <https://arxiv.org/abs/2607.28082>
- Zheng, Y., Li, S., Wu, F., **Yang, Z.**, Hongchao, L., Hu, Z., Xinjun, C., Wang, Z., Chen, J., Luan, S., Xu, J., & Chen, L. (2025). FanChuan: A Multilingual and Graph-Structured Benchmark For Parody Detection and Analysis. *ACL 2025 Findings*. Available at <https://arxiv.org/abs/2502.16503>

PROFESSIONAL EXPERIENCE

Final Year Project - Reliable LLM-based Text-to-SPARQL Generation <i>Nanyang Technological University</i> - Fine-tuned LLMs with LoRA/QLoRA for Knowledge Graph (KG)-grounded structured query generation - Proposed Generator-Gate-Corrector framework, improving query accuracy from 90.23% to 98.33% - Built a GraphDB-based generation, execution, and evaluation pipeline and conducted systematic ablation and error analyses	Aug 2025 – May 2026 <i>Singapore</i>
Summer Research Internship <i>Rice University</i> - Developed an extensible multi-agent LLM system to address single-agent limitations - Achieved ~7% accuracy improvement on MedQA benchmark compared to base model (Llama-3-7B) - Investigated LLM reasoning and hallucinations, implementing validation protocols to enhance output reliability - Built Python pipelines leveraging HuggingFace models and datasets for LLM inference and evaluation	Jun 2025 – Aug 2025 <i>Houston, TX, US</i>
Undergraduate Research Experience on Campus (URECA) <i>Nanyang Technological University</i> - Curated and annotated 6,000+ samples across five social-media datasets using standardized labeling protocols - Constructed text- and graph-based representations with contextual and entity-level features - Benchmarked GNN and LLM models and conducted error analysis and qualitative case studies	Aug 2024 – Jun 2025 <i>Singapore</i>
Intelligent Equipment Intern <i>Shanghai Baosight Software Co, Ltd</i> - Developed reinforcement learning algorithms for gait control of humanoid robots - Optimized dual-manipulator grasping with YOLOv5, achieving 95% detection accuracy and 85% grasp success - Utilized multiple simulation environments for RL training, including Isaac Gym, Isaac Sim, and Gazebo	May 2024 – Aug 2024 <i>Shanghai, China</i>

TECHNICAL SKILLS

Languages & Libraries: Python, R, C/C++, MATLAB, LaTeX, Bash, NumPy, pandas, Plotly, Matplotlib
ML & AI Frameworks: HuggingFace, PyTorch, Transformers, Unsloth, DGL, CUDA, YOLOv5,
LLM-related Skills: LoRA/QLoRA, LLM fine-tuning, LLM inference, Sentence-BERT, RoBERTa, RAG
Tools & Frameworks: ROS/ROS2, Anaconda, Jupyter Notebook, MySQL, Git, Docker, tmux, GraphDB, Slurm