JITING CAI

Shanghai Jiao Tong University — caijiting@sjtu.edu.cn — (+86) 13660333345

EDUCATION

Shanghai Jiao Tong University Aug. 2021 — Jun. 2025 (Expected)
Bachelor of Engineering in Computer Science

- **Overall GPA: 4.12**/4.30 (**Ranking: 1**/103) — **Major GPA 4.13**/4.30 (**Ranking: 1**/103)
- **Core Courses**: Calculus(1)&(2)(A&A+), Linear Algebra(A+), Probability and Statistics(A+), Data Structure(A+), Computer Organization Principle(A+), Computer Networks(A), Principles of Assembly and Compilation(A+), Algorithm and Complexity(A), Discrete Mathematics(A+), Artificial Intelligence(A), Computer Graphics(A+), Mathematical Foundations of Computer Science (A+), Computer System Architecture(A), Cloud Computing(A), Thinking and Methodology in Programming (C++)(A), Experiments in Computer Organization(A+)

PUBLICATION

Take a Step Back: Rethinking the Two Stages in Visual Reasoning
Jiting Cai*, Mingyu Zhang*, Yue Xu, Mingyu Liu, Cewu Lu, Yong-Lu Li. under review*

RESEARCH EXPERIENCE

John Hopcroft Center for Computer Science, Shanghai Jiao Tong University Oct. 2022 - March. 2023
Advisor: ***Liyao Xiang*** *, School of Electronic Information and Electrical Engineering, Shanghai Jiao Tong University*

- Conducted the survey considering differential privacy as the crucial technique for privacy protection and network security
- Helped to design a special kind of differential privacy method which favors comparatively efficiency
- Participated in mathematical analysis and conducting the experiments

MVIG Lab, RHOS Group, Shanghai Jiao Tong University Apr. 2023 - Now
Advisor: ***Yong-Lu Li*** *, School of Electronic Information and Electrical Engineering, Shanghai Jiao Tong University*

- Identified that current visual reasoning technique all lacks generalization ability and would be restricted within a single task
- Analyzed the difference between symbolization stage and the reasoning stage of current visual reasoning model and determined that the reasoning stage is more general compared to the symbolization stage
- Introduced a new visual reasoning framework based on the analysis and used different encoder for different tasks' symbolization stage while used the unique reasoning network for reasoning process
- Introduced the "approximation principle", which showcases the reasoner's ability could be improved by adding more independent tasks that belong to different domains and modalities
- Contributed to the analysis of disentanglement of symbolization and reasoning, the design of the framework structure, conducting of the experiments

HONORS AND REWARDS

Merit Student (top 5%) 2022
Shanghai Jiao Tong University
Excellent Project in Engineering Practice (top 5th place) 2022
Shanghai Jiao Tong University

SKILLS

- **Programming Skills:** Python, C/C++, PyTorch, TensorFlow, LaTeX, Assembly Language
- **Language Skills:**
  Chinese: Native
  English: Fluent, CET-6 score 616 (L221/R235/W160)