

Cong Yuchen

Education

Juntendo University | Tokyo, Japan

Master of Health Data Science | Apr 2025 - Present

- Supervisors: Prof. Ryutaro Himeno & Prof. Zhe Sun
- GPA: 3.74/4
- Research Focus: Variational Inference via Tensor Networks

Qilu University of Technology | Shandong, China

Bachelor of Engineering in Computer Science and Technology | Aug 2019 – Jun 2023

- GPA: 4.13/5

Work Experience

Center for Advanced Intelligence Project (AIP), RIKEN | Tokyo, Japan

Research Assistant, Tensor Learning Team | Nov 2024 - Present

- Supervisor: Dr. Chao Li
- Conducted in-depth research on **tensor network architecture search**, exploring its applications in Quantum Circuit Architecture Search.
- Deployed machine learning models on **high-performance computing (HPC)** clusters to support large-scale training.
- Developed quantum-inspired **tensor-network methods and algorithms** for **score-based variational inference** in probabilistic modeling.

Publications & Presentations

- **Yuchen Cong**, Zhe Sun, Chao Li. "Score-based Variational Inference via Quantum Maximally Mixed States." *The Annual Conference of the Japanese Society for Artificial Intelligence (JSAI)*, 2026. [Oral Presentation]
- Chao Li, **Yuchen Cong**. "Tensor Network and its Structure Search Problem." *Mechanism of Brain and Mind Winter Workshop*, 2025. [Poster Presentation]

Awards

- 2023 **National Scholarship**
- 2020 **National Inspirational Scholarship**
- 11th Lanqiaobei National Software Competition (C/C++), **Third Prize**
- 15th China University Computer Design Competition, **First Prize**

Skills & Languages

- Programming: Python (PyTorch, NumPy), C++, Linux, HPC (Fugaku, Hokusai, Raiden)
- Languages: Chinese (Native), English (Professional Working Proficiency, TOEIC: 880/990)