Qihang Jin

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EDUCATION

University of Science and Technology of China, Hefei, China — Aug. 2024 – Jun. 2027
Master of Engineering in Electronic and Information Engineering

- GPA: 3.8/4.3; First-Class Graduate Scholarship, 2025
- **Relevant Courses:** Computational Number Theory, Advanced Course of Artificial Intelligence, Computer Vision, Advanced Computer Networks, Principles of Neurobiology for Brain-Inspired Artificial Intelligence

Chang'an University, Xi'an, China — Aug. 2018 – Jul. 2022
Bachelor of Engineering

PUBLICATION

Qihang Jin, Enze Ge, Yuhang Xie, *et al.* Multimodal Representation Learning and Fusion. *arXiv*. Jun. 2025. DOI: 10.48550/arXiv.2506.20494

Enze Ge, **Qihang Jin**, Yuhang Xie, *et al.* From Memory to Alignment: A Comprehensive Review of Large Language Model Optimization. *TechRxiv*. Oct. 2025. DOI: 10.36227/techrxiv.176107630.07942950/v1

Qihang Jin, *et al.* Effect of Brain-Computer Interface on Limb Motor Function after Intracerebral Hemorrhage in Basal Ganglia and Its Rehabilitation Mechanism. *Under review*. Jun. 2025.

Jin Qihang, Cheng Zhaozhan. Adjustable Limiting and Fixing Device for Automated Machining. *CN 110480545 B*. Filed Aug. 23, 2019. Issued Jul. 9, 2021.

RESEARCH EXPERIENCE

HySSM-Pyramid Learnable Hypergraph Scans for Multi-Scale Vision — Jul. 2025 – present

- Designed HySSM, a state-on-hyperedge SSMs, $\mathcal{O}(N(d+h))$ complexity, and empirically verified Hypergraph, Graph, Sequence degradation across multi-scale vision benchmarks.
- Built the hypergraph builder, DAS-H scanner, and HyperEdge-SSM stack with register anchors, stage caches, fused SpMM, and fully scripted ImageNet-1K runs with reproducible FLOPs/throughput.

Jacobi Orthogonal Rotation Adapter via Sparse Givens Rotations and Tiny Core — Jul. 2025 – present

- Authored J-ORA : bilateral sparse Givens "sandwich" plus Tiny Core with OER magnitude heads, register-style norm scaling, and only 3.6K trainable parameters per layer.
- Delivered curvature-aware pair selection, Cayley-initialized rotations, S-budget warm-up, and production tools (Triton kernels, LLaMA-Factory integration, LoRA-vs-JORA suites).

Automotive Performance Data Processing and Analysis Software — Sept. 2021 – Jun. 2022

- Built a MATLAB/GUI application with multi-interface switching for automotive experiment analytics, computing dynamics, fuel, braking and stability KPIs, generating report-ready visuals, and delivering validated high-accuracy algorithms plus a user-friendly workflow that boosted analysis efficiency by 10%.

PROJECT EXPERIENCE

Integrated UAV Inspection Training Platform | *Development Engineer* — Sept. 2024 – present

- Built an AirSim+UE4.27 UAV training platform with custom UI integration plus localization, autonomous-flight, collision pipelines and delivering automated drills that cut response latency 10% and raised efficiency 5%.

License Plate Recognition System Based on CNN | *Project Leader* — Mar. 2020 – Aug. 2020

- Led a 95%-accurate CNN license-plate system with full OpenCV preprocessing (calibration→flood filling) and regularization/hyperparameter tuning to handle adverse lighting and boost segmentation robustness.
- **"Internet+" Competition: Main Track Bronze Award**

SKILLS

Languages: Chinese (Native), English (Fluent, IELTS 6.5)

Technical: Python, C++, PyTorch, Scikit-learn, Pandas, NumPy