

Feiyu Du

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Education

The University of Texas at Dallas Ph.D. in Computer Science, Advisor: Dingzhu Du	Started on 08/2026 Richardson, Texas, US
Shaanxi University of Science & Technology M.S. in Software Engineering, GPA: 3.76/4.0	09/2021 - 06/2024 Shaanxi, CHN
Shaanxi University of Science & Technology B.S. in Information and Computational Science, GPA: 3.56/4.0	09/2017 - 06/2021 Shaanxi, CHN

Experience

Research Collaborator, The University of Texas at Dallas Topic: Multimodal Learning and Egocentric Video Understanding	06/2025 - 05/2026 Dallas, US
- Reformulated egocentric Talk-to-Me detection as online, frame-level recognition across four social speaking states; first-author paper accepted to ACM Multimedia 2026. - Constructed the Online TTM Dataset from Ego4D Social, reconstructing frame-level labels and curating 885,866 frames across 406 videos through temporal resampling and data cleaning. - Designed a multimodal framework integrating visual, audio, and speech-semantic cues for online Talk-to-Me detection, achieving 75.5% frame-level F1 and 79.8% segment-level mAP, outperforming the strongest evaluated baseline by 9.2 and 7.0 percentage points, respectively.	
Research Assistant, University of Electronic Science and Technology of China Topic: Quantum Machine Learning and Domain Adaptation	07/2024 - 03/2025 Chengdu, CHN
- Designed and implemented quantum-enhanced machine learning algorithms for domain adaptation and transfer learning under heterogeneous and noisy quantum environments. - Investigated representation alignment, distribution shift, feature interaction, and model generalization in quantum machine learning systems. - Implemented and evaluated learning algorithms across simulated and hardware-oriented quantum settings, leading to multiple research works in quantum machine learning.	

Research Papers

[1] Talking to Me or Someone Else? Rethinking Talk-to-Me Detection in Egocentric Videos Feiyu Du, Xi He, Jia Li, Yapeng Tian, Weili Wu	ACM MM 2026, Accepted
[2] EgoSIB: A Hierarchical Benchmark for Social Intelligence in Egocentric Videos Feiyu Du, Xi He, Xinpeng Li, Shijian Deng, Jinheng Zhang, Yuxiao Wang, Yapeng Tian, Weili Wu	Prepared for submission to CVPR 2027
[3] E-MMSI: Toward Evidence-Grounded Social Interaction Understanding Xinpeng Li, Brandon Chu, Zijun Cui, Kai Wang, Jia Li, Feiyu Du, Yubin Zhou, Heather Yu, Xiyun Song, Liang Peng, Yapeng Tian	ICML 2027 Under Review
[4] Do Joint Audio-Video Generation Models Understand Physics? Zijun Cui, Xiulong Liu, Hao Fang, Mingwei Xu, Jiaqeng Liu, Zexin Xu, Weiguo Pian, Shijian Deng, Feiyu Du, Chenming Ge, Yapeng Tian	NeurIPS 2026 E&D, Accepted
[5] Calibration Is Not Recoverability: A-Priori Certificates for Amortized Simulation-Based Inference Xi He, Feiyu Du	Under Review
[6] Estimating Feature Interactions Across Input Distributions in Quantum Machine Learning Xi He, Feiyu Du	Under Review
[7] Path-Length-Aware Gradual Domain Adaptation via Edge-Budgeted Local Drift Control Xi He, Feiyu Du, Xiaohan Yu, Weili Wu	Under Review
[8] Representation Reuse as an Observation Channel: Common-Measurement Complexity in Repeated Quantum Inverse Learning Xi He, Feiyu Du, Yapeng Tian, Weili Wu	Under Review
[9] Fish Target Recognition Method Based on Joint Deep Statistical Feature Alignment Haiyan Wang, Feiyu Du, Haiyang Yao, Xiao Chen	JSUST, 2024

[10] Underwater Image Enhancement Algorithm Based on Domain Adaptive Method

Feiyu Du, Haiyan Wang, Haiyang Yao, Xiao Chen

Computer and Modernization, 2023

[11] Quantum Joint Distribution Adaptation on the Universal Quantum Computer

Feiyu Du, Xi He

IEEE PRAI 2023

[12] Quantum Kernel Subspace Alignment for Unsupervised Domain Adaptation

Xi He, Feiyu Du

ACML 2023

[13] Quantum Classifiers for Domain Adaptation

Xi He, Feiyu Du, Mingyuan Xue, Xiaogang Du, Tao Lei, A. K. Nandi

Quantum Information Processing, 2023

Technical Skills

Languages: Python, C/C++, SQL

Technologies: PyTorch, scikit-learn, Huggingface, PyTorch-Lightning, OpenCV, Git, Linux, CUDA, LaTeX

Research & Data: Benchmark construction, data pipelines, dataset validation, model evaluation, relational databases, transfer learning, domain adaptation