

Jiawei Zhou

Curriculum Vitae

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EDUCATION

Fudan University

Sep 2026 – Present

Incoming Ph.D. in Computer Science and Technology

Shanghai Jiao Tong University

Sep 2023 – Jun 2026

M.S. in Management Science and Engineering, Department of Data and Business Intelligence

- Honors: National Scholarship, First-Class Scholarship.
- Selected coursework: Deterministic Operations Research Models, Stochastic Models, Advanced Microeconomics, Game Theory, Machine Learning Theory.
- Thesis: *An Interactive Community Search Framework via Graph Active Learning.*

East China Normal University

Sep 2019 – Jun 2023

B.Eng. in Data Science and Big Data Technology

- GPA: 3.7/4.0. Honors: National Scholarship, First-Class Scholarship, Meritorious Winner in MCM/ICM.
- Selected coursework: Modern Data Management Systems, Computer Systems and Cloud Computing, Operating Systems, Statistical Methods and Machine Learning, Algorithm Design and Analysis, Data Mining, Modern Artificial Intelligence, Deep Learning for NLP, Computer Vision.
- Thesis: *Cryptocurrency Portfolio Management Based on Deep Reinforcement Learning.*

PUBLICATIONS

* Equal contribution. † Co-corresponding authors.

COMET: An Interactive Framework for Efficient and Effective Community Search via Active Learning

INFORMS Journal on Computing, 2025

Jiawei Zhou, Kai Wang, Jianwei Wang, Kunpeng Zhang, Xuemin Lin

- Proposed an active-learning framework for large-scale community search that builds query-aware subgraphs through Personalized PageRank conductance drops and models search as sequential node classification with low-complexity GCNs.

ARK: Answer-Centric Retriever Tuning via KG-augmented Curriculum Learning

ACL, 2026

Jiawei Zhou*, Hang Ding*, Haiyun Jiang

- Developed an answer-centric retriever tuning framework for long-context RAG using LLM-constructed knowledge graphs and curriculum-based contrastive alignment, improving retrieval-generation performance by 14.5% F1 across 10 out-of-domain datasets.

TRUSTRESEARCHER: Automating Knowledge-Grounded and Transparent Research Ideation with Multi-Agent Collaboration

WWW Demo, 2026

Jiawei Zhou, Ruicheng Zhu, Mengshi Chen, Jianwei Wang, Kai Wang

- Built a multi-agent research ideation system with incremental knowledge graphs, graph-of-thought reasoning, and simulated expert review to generate evidence-grounded and transparent research hypotheses.

EvoSQL: Memory-Augmented Critic-Generator Co-Evolution for Text-to-SQLARR In submission, 2026Jiawei Zhou, Jianwei Wang, Chenyu Zhou, Chaojian Shi, Ming Dong, Kai Wang

- Developed a memory-augmented critic-generator co-evolution framework that combines execution-based verification, LLM critique, contextualized candidate memory, and SDPO initialization, achieving up to +9.19 EX over Maj@16 and +6.13 EX over self-evolution on BIRD-Dev.

Modular Representation Steering for Multi-Attribute LLM AlignmentARR In submission, 2026Chaojian Shi, Renhong Huang, Xulan Qiu, Jiawei Zhou†, Yunsong Zhou†

- Developed a modular representation-steering framework that composes independently trained attribute-specific intervention modules in a frozen LLM with calibrated and compatibility-aware hidden-state composition, improving average rank by 37.4% over the strongest multi-attribute baseline across truthfulness, bias, ethics, and toxicity.

INTERN

Shanghai AI LaboratoryResearch InternAug 2025 –

- Developed hybrid SDPO plus activation steering co-evolving strategies with auto-curriculum scheduling to improve safety and utility tradeoff in extended multi-turn settings.
- Designed multi-turn, multi-candidate self-evolving agent frameworks that use executable code feedback as critic signals and optimize planning via GRPO.

WANO ShanghaiAlgorithm EngineerApr 2025 – Oct 2025

- Built WANO-AGENT, a collaborative multi-agent framework based on MCP and DeepSeek-V3 for internal peer-review workflows.
- Constructed a domain knowledge base with Milvus and decomposed fact extraction, report writing, and compliance checking into specialized agent roles.
- Pilot deployment showed a 61.1% improvement in professional document preparation efficiency while strengthening factual accuracy and report consistency.

CloudWalkNLP InternJul 2022 – Sep 2022

- Implemented an end-to-end BERT-BiLSTM-CRF prosodic structure prediction pipeline with SpanPSP-based decoding and boundary refinement.
- Introduced self-training and active learning to exploit unlabeled internal data, achieving an approximately 7% F1 gain on the company’s internal benchmark.

TECHNICAL SKILLS

Programming	Python, C++
Reinforcement Learning	VeRL, ms-swift, Gymnasium, Stable-Baselines3
LLM Stack	LLaMA-Factory, PEFT, Bitsandbytes, tiktoken, LlamaIndex, LangChain, Milvus, Faiss, Ollama, vLLM
Deep Learning	PyTorch, Transformers, Sentence-Transformers, PyG, Weights & Biases
Data & Analysis	STATA, SciPy, scikit-learn, XGBoost, NLTK, spaCy, NetworkX, graph-tool, CDlib
Tools & Databases	Git, Docker, L ^A T _E X, MySQL, PostgreSQL, MongoDB, Redis
English	CEFR C2, TOEFL 100+, CET-6 620+