

Here is a summary of the recent AI papers from arXiv:

This page lists recent submissions to the Artificial Intelligence (cs.AI) section of arXiv. It displays the titles, authors, and subjects of the papers. The page shows the first 50 of 187 entries for Wed, 6 Aug 2025.

- ****Agent Lightning: Train ANY AI Agents with Reinforcement Learning****

- Authors: Xufang Luo, Yuge Zhang, Zhiyuan He, Zilong Wang, Siyun Zhao, Dongsheng Li, Luna K. Qiu, Yuqing Yang

- Subjects: Artificial Intelligence (cs.AI); Machine Learning (cs.LG)

- ****Automated Algorithmic Discovery for Gravitational-Wave Detection Guided by LLM-Informed Evolutionary Monte Carlo Tree Search****

- Authors: He Wang, Liang Zeng

- Subjects: Artificial Intelligence (cs.AI); High Energy Astrophysical Phenomena (astro-ph.HE); Instrumentation and Methods for Astrophysics (astro-ph.IM); General Relativity and Quantum Cosmology (gr-qc)

- ****Refining Critical Thinking in LLM Code Generation: A Faulty Premise-based Evaluation Framework****

- Authors: Jialin Li, Jinzhe Li, Gengxu Li, Yi Chang, Yuan Wu

- Subjects: Artificial Intelligence (cs.AI)

- ****Hidden Dynamics of Massive Activations in Transformer Training****

- Authors: Jorge Gallego-Feliciano, S. Aaron McClendon, Juan Morinelli, Stavros Zervoudakis, Antonios Saravanos

- Subjects: Artificial Intelligence (cs.AI)

- ****Error Detection and Correction for Interpretable Mathematics in Large Language Models****
 - Authors: Yijin Yang, Cristina Cornelio, Mario Leiva, Paulo Shakarian
 - Subjects: Artificial Intelligence (cs.AI)

- ****VQA support to Arabic Language Learning Educational Tool****
 - Authors: Khaled Bachir Delassi, Lakhdar Zeggane, Hadda Cherroun, Abdelhamid Haouhat, Kaoutar Bouzouad
 - Subjects: Artificial Intelligence (cs.AI); Software Engineering (cs.SE)

- ****Semantic-aware Graph-guided Behavior Sequences Generation with Large Language Models for Smart Homes****
 - Authors: Zhiyao Xu, Dan Zhao, Qingsong Zou, Qing Li, Yong Jiang, Yuhang Wang, Jingyu Xiao
 - Subjects: Artificial Intelligence (cs.AI)

- ****Toward a Graph-Theoretic Model of Belief: Confidence, Credibility, and Structural Coherence****
 - Authors: Saleh Nikooroo
 - Subjects: Artificial Intelligence (cs.AI)

- ****Data Overdose? Time for a Quadruple Shot: Knowledge Graph Construction using Enhanced Triple Extraction****
 - Authors: Taine J. Elliott, Stephen P. Levitt, Ken Nixon, Martin Bekker
 - Subjects: Artificial Intelligence (cs.AI)

- ****Multi-Objective Infeasibility Diagnosis for Routing Problems Using Large Language Models****
 - Authors: Kai Li, Ruihao Zheng, Xinye Hao, Zhenkun Wang
 - Subjects: Artificial Intelligence (cs.AI)

- ****Hide and Seek with LLMs: An Adversarial Game for Sneaky Error Generation and Self-Improving Diagnosis****

- Authors: Rui Zou, Mengqi Wei, Yutao Zhu, Jirong Wen, Xin Zhao, Jing Chen

- Subjects: Artificial Intelligence (cs.AI)

- ****Data Dependency Inference for Industrial Code Generation Based on UML Sequence Diagrams****

- Authors: Wenxin Mao, Zhitao Wang Long Wang, Sirong Chen, Cuiyun Gao, Luyang Cao, Ziming Liu, Qiming Zhang, Jun Zhou, Zhi Jin

- Subjects: Artificial Intelligence (cs.AI); Software Engineering (cs.SE)

- ****Board Game Arena: A Framework and Benchmark for Assessing Large Language Models via Strategic Play****

- Authors: Lucia Cipolina-Kun, Marianna Nezhurina, Jenia Jitsev

- Subjects: Artificial Intelligence (cs.AI); Computer Science and Game Theory (cs.GT)

- ****A Comparative Study of Neurosymbolic AI Approaches to Interpretable Logical Reasoning****

- Authors: Michael K. Chen

- Subjects: Artificial Intelligence (cs.AI); Computation and Language (cs.CL); Machine Learning (cs.LG); Symbolic Computation (cs.SC)

- ****CogBench: A Large Language Model Benchmark for Multilingual Speech-Based Cognitive Impairment Assessment****

- Authors: Feng Rui, Zhiyao Luo, Wei Wang, Yuting Song, Yong Liu, Tingting Zhu, Jianqing Li, Xingyao Wang

- Subjects: Artificial Intelligence (cs.AI)

- ****Compressing Chain-of-Thought in LLMs via Step Entropy****

- Authors: Zeju Li, Jianyuan Zhong, Ziyang Zheng, Xiangyu Wen, Zhijian Xu, Yingying Cheng, Fan Zhang, Qiang Xu

- Subjects: Artificial Intelligence (cs.AI)

- ****Adaptive AI Agent Placement and Migration in Edge Intelligence Systems****

- Authors: Xingdan Wang, Jiayi He, Zhiqing Tang, Jianxiong Guo, Jiong Lou, Liping Qian, Tian Wang, Weijia Jia

- Subjects: Artificial Intelligence (cs.AI)

- ****Nemori: Self-Organizing Agent Memory Inspired by Cognitive Science****

- Authors: Jiayan Nan, Wenquan Ma, Wenlong Wu, Yize Chen

- Subjects: Artificial Intelligence (cs.AI)

- ****ToolVQA: A Dataset for Multi-step Reasoning VQA with External Tools****

- Authors: Shaofeng Yin, Ting Lei, Yang Liu

- Subjects: Artificial Intelligence (cs.AI)

- ****Full-History Graphs with Edge-Type Decoupled Networks for Temporal Reasoning****

- Authors: Osama Mohammed, Jiaxin Pan, Mojtaba Nayyeri, Daniel Hernández, Steffen Staab

- Subjects: Artificial Intelligence (cs.AI)

- ****InqEduAgent: Adaptive AI Learning Partners with Gaussian Process Augmentation****

- Authors: Tian-Fang Zhao, Wen-Xi Yang

- Subjects: Artificial Intelligence (cs.AI)

- ****Geoint-R1: Formalizing Multimodal Geometric Reasoning with Dynamic Auxiliary Constructions****
 - Authors: Jingxuan Wei, Caijun Jia, Qi Chen, Honghao He, Linzhuang Sun, Conghui He, Lijun Wu, Bihui Yu, Cheng Tan
 - Subjects: Artificial Intelligence (cs.AI)

- ****Causal identification with****
 - Authors: Charles Tapley Hoyt, Craig Bakker, Richard J. Callahan, Joseph Cottam, August George, Benjamin M. Gyori, Haley M. Hummel, Nathaniel Merrill, Sara Mohammad Taheri, Pruthvi Prakash Navada, Marc-Antoine Parent, Adam Rupe, Olga Vitek, Jeremy Zucker
 - Subjects: Artificial Intelligence (cs.AI)

- ****Can Large Language Models Bridge the Gap in Environmental Knowledge?****
 - Authors: Linda Smail, David Santandreu Calonge, Firuz Kamalov, Nur H. Orak
 - Subjects: Artificial Intelligence (cs.AI)

- ****Toward a Trustworthy Optimization Modeling Agent via Verifiable Synthetic Data Generation****
 - Authors: Vinicius Lima, Dzung T. Phan, Jayant Kalagnanam, Dhaval Patel, Nianjun Zhou
 - Subjects: Artificial Intelligence (cs.AI)

- ****AgentSME for Simulating Diverse Communication Modes in Smart Education****
 - Authors: Wen-Xi Yang, Tian-Fang Zhao
 - Subjects: Artificial Intelligence (cs.AI)

- ****Toward Verifiable Misinformation Detection: A Multi-Tool LLM Agent Framework****
 - Authors: Zikun Cui, Tianyi Huang, Chia-En Chiang, Cuiqianhe Du
 - Subjects: Artificial Intelligence (cs.AI); Computation and Language (cs.CL)

- ****T2UE: Generating Unlearnable Examples from Text Descriptions****

- Authors: Xingjun Ma, Hanxun Huang, Tianwei Song, Ye Sun, Yifeng Gao, Yu-Gang Jiang

- Subjects: Artificial Intelligence (cs.AI); Cryptography and Security (cs.CR); Computer Vision and Pattern Recognition (cs.CV)

- ****MissDDIM: Deterministic and Efficient Conditional Diffusion for Tabular Data Imputation****

- Authors: Youran Zhou, Mohamed Reda Bouadjenek, Sunil Aryal

- Subjects: Artificial Intelligence (cs.AI)

- ****EoH-S: Evolution of Heuristic Set using LLMs for Automated Heuristic Design****

- Authors: Fei Liu, Yilu Liu, Qingfu Zhang, Xialiang Tong, Mingxuan Yuan

- Subjects: Artificial Intelligence (cs.AI)

- ****ContractEval: Benchmarking LLMs for Clause-Level Legal Risk Identification in Commercial Contracts****

- Authors: Shuang Liu, Zelong Li, Ruoyun Ma, Haiyan Zhao, Mengnan Du

- Subjects: Artificial Intelligence (cs.AI)

- ****Beyond Surface-Level Detection: Towards Cognitive-Driven Defense Against Jailbreak Attacks via Meta-Operations Reasoning****

- Authors: Rui Pu, Chaozhuo Li, Rui Ha, Litian Zhang, Lirong Qiu, Xi Zhang

- Subjects: Artificial Intelligence (cs.AI)

- ****Tree-of-Reasoning: Towards Complex Medical Diagnosis via Multi-Agent Reasoning with Evidence Tree****

- Authors: Qi Peng, Jialin Cui, Jiayuan Xie, Yi Cai, Qing Li

- Subjects: Artificial Intelligence (cs.AI)

- ****From Text to Trajectories: GPT-2 as an ODE Solver via In-Context****
 - Authors: Ziyang Ma, Baojian Zhou, Deqing Yang, Yanghua Xiao
 - Subjects: Artificial Intelligence (cs.AI)

- ****Collab-Solver: Collaborative Solving Policy Learning for Mixed-Integer Linear Programming****
 - Authors: Siyuan Li, Yifan Yu, Yanchen Deng, Zhihao Zhang, Mengjing Chen, Fangzhou Zhu, Tao Zhong, Jianye Hao, Peng Liu, Bo An
 - Subjects: Artificial Intelligence (cs.AI)

- ****Beyond Policy Optimization: A Data Curation Flywheel for Sparse-Reward Long-Horizon Planning****
 - Authors: Yutong Wang, Pengliang Ji, Kaixin Li, Baolong Bi, Tao Feng, Guillaume Sartoretti
 - Subjects: Artificial Intelligence (cs.AI); Robotics (cs.RO)

- ****AGENTiGraph: A Multi-Agent Knowledge Graph Framework for Interactive, Domain-Specific LLM Chatbots****
 - Authors: Xinjie Zhao, Moritz Blum, Fan Gao, Yingjian Chen, Boming Yang, Luis Marquez-Carpintero, Mónica Pina-Navarro, Yanran Fu, So Morikawa, Yusuke Iwasawa, Yutaka Matsuo, Chanjun Park, Irene Li
 - Subjects: Artificial Intelligence (cs.AI); Computation and Language (cs.CL)

- ****When AIs Judge AIs: The Rise of Agent-as-a-Judge Evaluation for LLMs****
 - Authors: Fangyi Yu
 - Subjects: Artificial Intelligence (cs.AI)

- ****Unified Tool Integration for LLMs: A Protocol-Agnostic Approach to Function Calling****

- Authors: Peng Ding, Rick Stevens
- Subjects: Artificial Intelligence (cs.AI); Computation and Language (cs.CL); Machine Learning (cs.LG)

- ****Defend LLMs Through Self-Consciousness****
- Authors: Boshi Huang, Fabio Nonato de Paula
- Subjects: Artificial Intelligence (cs.AI); Computation and Language (cs.CL); Cryptography and Security (cs.CR)

- ****Polymath: A Self-Optimizing Agent with Dynamic Hierarchical Workflow****
- Authors: Chia-Tung Ho, Jing Gong, Xufeng Yao, Yunsheng Bai, Abhishek B Akkur, Haoxing Ren
- Subjects: Artificial Intelligence (cs.AI); Machine Learning (cs.LG)

- ****MedBLINK: Probing Basic Perception in Multimodal Language Models for Medicine****
- Authors: Mahtab Bigverdi, Wisdom Ikezogwo, Kevin Zhang, Hyewon Jeong, Mingyu Lu, Sungjae Cho, Linda Shapiro, Ranjay Krishna
- Subjects: Artificial Intelligence (cs.AI)

- ****AQUAH: Automatic Quantification and Unified Agent in Hydrology****
- Authors: Songkun Yan, Zhi Li, Siyu Zhu, Yixin Wen, Mofan Zhang, Mengye Chen, Jie Cao, Yang Hong
- Subjects: Artificial Intelligence (cs.AI)

- ****PentestJudge: Judging Agent Behavior Against Operational Requirements****
- Authors: Shane Caldwell, Max Harley, Michael Kouremetis, Vincent Abruzzo, Will Pearce
- Subjects: Artificial Intelligence (cs.AI); Cryptography and Security (cs.CR)

- ****Enhancing Japanese Large Language Models with Reasoning Vectors****
 - Authors: Carolina Minami Oguchi, Leo Wei, Koyo Kobayashi, Hsin-Tai Wu, Dipak Ghosal
 - Subjects: Artificial Intelligence (cs.AI)

- ****Seemingly Simple Planning Problems are Computationally Challenging: The Countdown Game****
 - Authors: Michael Katz, Harsha Kokel, Sarath Sreedharan
 - Subjects: Artificial Intelligence (cs.AI)

- ****A Multi-Agent System for Complex Reasoning in Radiology Visual Question Answering****
 - Authors: Ziruo Yi, Jinyu Liu, Ting Xiao, Mark V. Albert
 - Subjects: Artificial Intelligence (cs.AI); Information Retrieval (cs.IR)

- ****Cognitive Loop via In-Situ Optimization: Self-Adaptive Reasoning for Science****
 - Authors: Newman Cheng, Gordon Broadbent, William Chappell
 - Subjects: Artificial Intelligence (cs.AI)

- ****Large Language Model-based Data Science Agent: A Survey****
 - Authors: Peiran Wang, Yaoning Yu, Ke Chen, Xianyang Zhan, Haohan Wang
 - Subjects: Artificial Intelligence (cs.AI)

- ****Recovering Individual-Level Activity Sequences from Location-Based Service Data Using a Novel Transformer-Based Model****
 - Authors: Weiyu Luo, Chenfeng Xiong
 - Subjects: Artificial Intelligence (cs.AI); Computational Engineering, Finance, and Science (cs.CE)