

- 2026-02-17

: [RLVR], [], [Agent], [Benchmark]

1. Experiential Reinforcement Learning

: Experiential Reinforcement Learning : Taiwei Shi, Sihao Chen, Bowen Jiang, Linxin Song, Longqi Yang, Jieyu Zhao : Microsoft **ArXiv ID:** 2602.13949 : [], []

: $\frac{1}{T} \sum_{t=0}^T \text{RL} \left(r_t, \frac{1}{T} \sum_{t=0}^T r_t \right)$ (credit assignment) $\mathbf{E}_\tau[\sum_{t=0}^T \gamma^t r_t]$
 : RLHF \rightarrow DPO \rightarrow GRPO \rightarrow RLVR self-reflection RL
 " " " "

: - reflection - initial attempt \rightarrow refined attempt
 : - - reflection
 : RL Hindsight Experience Replay (HER) +81%
 +11%

1. **Experience-Reflection-Consolidation** : single-step RL
2. **Structured Behavioral Revision:** " " reflection
3. : consolidation policy reflection

- : PPO, GRPO, DPO RL
- : Sparse-reward control environments, agentic reasoning benchmarks
- :

reflection

: RL " " RL " " ERL " " reflection
 : Self-reflection RL CoT

- : agentic benchmark LLM
- :
- : Implicit REINFORCE

2. Embed-RL: Reinforcement Learning for Reasoning-Driven Multimodal Embeddings

: Embed-RL: Reinforcement Learning for Reasoning-Driven Multimodal Embeddings : Haonan Jiang, Yuji Wang, Yongjie Zhu, Xin Lu, Wenyu Qin, Meng Wang, Pengfei Wan, Yansong Tang : Tsinghua University **ArXiv ID:** 2602.13823 : [], []

: query target multimodal embedding e $sim(e_q, e_t)$ CoT
reasoning retrieval

: $\mathcal{L} = -\log \frac{\exp(sim(q, t^+)/\tau)}{\sum \exp(sim(q, t)/\tau)}$ reasoning quality retrieval quality

1. **Traceability CoT (T-CoT):** reasoning trace multimodal cues
2. **Embedder-Guided RL:** Embedder reward signal Reasoner

: T-CoT retrieval ” ”

1. **EG-RL** : Embedder reward Reasoner
2. **T-CoT:** multimodal cues retrieval
3. **baseline**

- **Reward** : Embedder reward retrieval
- : multimodal cues
- : E5, BGE

[] RL + Multimodal

3. A Critical Look at Targeted Instruction Selection

: A Critical Look at Targeted Instruction Selection: Disentangling What Matters (and What Doesn't) : Nihal V. Nayak, Paula Rodriguez-Diaz, Neha Hulkund, Sara Beery, David Alvarez-Melis : Harvard DCML **ArXiv ID:** 2602.14696 : [], [], []

: instruction \mathcal{D} query \mathcal{Q} \mathcal{D} \mathcal{S} LLM \mathcal{Q}
 : subset \mathcal{S} query \mathcal{Q} " "

$$\min_{\mathcal{S} \subseteq \mathcal{D}, |\mathcal{S}|=k} \text{dist}(\mathcal{S}, \mathcal{Q})$$

: gradient-based 1. (data representation): semantic embedding vs gradient-based 2. (selection algorithm): greedy, importance sampling, etc.

1. : approximate distance minimization
2. : generalization bound
3. : gradient-based + greedy round-robin

- : instruction selection
- : LLM
- :

[] [] — " "

- entanglement
-
- zero-shot baseline

4. WebWorld: A Large-Scale World Model for Web Agent Training

: WebWorld: A Large-Scale World Model for Web Agent Training : Zikai Xiao, Jianhong Tu, Chuhan Zou, Yuxin Zuo, Zhi Li, Peng Wang, Bowen Yu,

Fei Huang, Junyang Lin, Zuozhu Liu : Qwen (Alibaba) **ArXiv ID:** 2602.14721
: [], [Agent], [Benchmark]

: Web agent trajectories
: W agent W

- 1. (1M+ interactions)
- 2. (code, GUI, game)

- 1. : 1M+ open-web interactions
- 2. **WebWorld-Bench:** 9 dual metrics
- 3. : GUI

- : WebWorld comparable to Gemini-3-Pro
- : Qwen3-14B WebArena +9.2%
- : GPT-5

[] — + Agent 1M trajectories

WebArena	~10K
WebShop	~2K
WebWorld	1M+

Experiential RL	RLVR	[], []
Targeted		[], []
Instruction		
Selection		

Embed-RL	RL +	[], []
	Multimodal	
WebWorld	Agent/Benchmark	[]

1. **RLVR** : ERL explicit self-reflection RL RLHF \rightarrow DPO \rightarrow GRPO \rightarrow RLVR
2. : Harvard gradient-based representation instruction selection
3. **Agent** : WebWorld

- DeepSeek/OpenAI RL
- MoRL (Peking)