1. MCP Server Collection

Scrape Registry



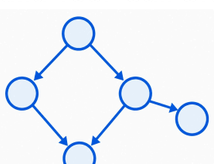
- Public MCP Registry
- Multi-Query Discovery
- Server Deduplicate

Filter



- Statelessness
- Non-authentication
- Schema Clarity
- Non-triviality

Build Tool-Call Graph



- Node: Tool
- Edge: Argument relation

e.g., look_up_paper() → read_pdf()

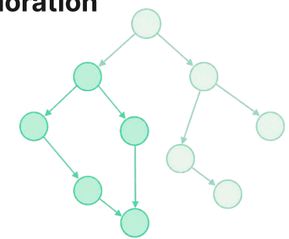
Retained MCP Servers **Tool Schemas**

2. Task Synthesis

Tool-chain Exploration



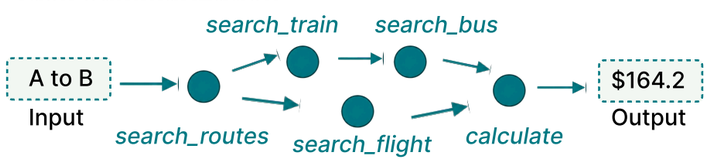
LLM explore the tool graph





Tool call state record

Task Summarization



Task example: *Compare travel prices from A to B.*

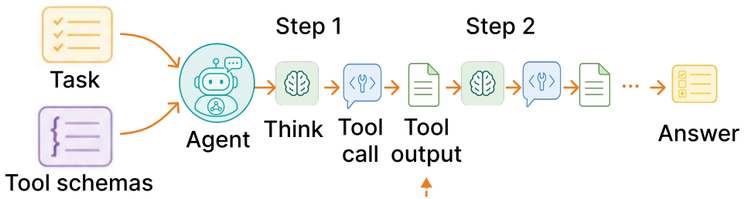
Task Validation

- Verifiability
- Well-Specified
- Realism
- Interpretability
- Difficulty Calibration

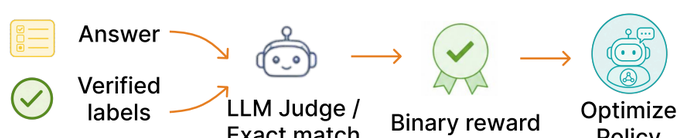
Validated Tasks **Verified Labels**

3. Reinforcement Learning

Agent rollout



Reward



Improved Tool-call Ability!