

??

- [llm_agent](#)
- [llm](#)
- [RAG](#)
- [GraphRAG](#)

??agent

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- 1.
 - 1.
 - 1.
 - 2.
 - 3.

Agent

 + LLM

Agent
 - 2.
 - 1.
 - 2.
- 2.
 - 1.
 - 2.
- 3.
 - 1.
 - 2.
 - 1.
 - 2.
 - 1. AI
 - 2. AI
 - 3.
 - 4.
 - 3.
 - 1.
 - 4. LLM
 - 1.
 - 2.
 - 3.
 - 4.
 - 5.
 - 5. : Jira, wiki, todo_list

AI???????

- 1.
 - 1.
 - 1.

2.

2.

1.

2. AI

3.

4.

5.

3.

1.

2.

1.

3.

4.

1.

2.

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1.

1.

2.

2.

1.

2.

3.

3. :

4.

5.

1.

2.

3.

??1

1.

2. LLM API

3.

4.

1.

5.

6.

7. LLM

1.

2.

- ??2

- ??

- [illegible]

3. /
3.
1. level
2.
3.
4.

?????

1. RAG
2. **graphrag nano-graphrag**
3. Google NotebookLM
4. onyx <https://github.com/onyx-dot-app/onyx>
5. kivy APP python SDL2
6. <https://github.com/reflex-dev/reflex> web python
7. svelte web + pocketBase
8. gradio <https://github.com/gradio-app/gradio.git> python svelte
9. MemOS Memory3
10. A-MEM: Agentic Memory for LLM Agents

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1.
 1. AGI
2.
 1.
 2. LLM
 3.
 1. +
 2. ...
3. RAG
 1.
 1.
 2.
 2.
 1. AI
 2. LLM
 3. LLM
 1. kv cache
 2.
4.
 1.
 1. rStar-Math CoT
 2. AlphaGo
 2. **Tool-Integrity Reasoning****TIR**

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1.
 1. xxx xxxx
 2. xxx xxxx
2.
 1. xxx xxxx
 2. xxx xxx
3.
 1.
 2.

?????

















- 1. meaning tree
 - 1. []
 - 2. []
 - 3. [] LLM []
 - 4. []
- 2. []
 - 1. []
 - 2. []
 - 3. [] prompt []

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- 1. []
 - 1. [] Consolidation []
 - 1. []
 - 2. []
 - 2. [] Updating []
 - 3. [] Indexing []
 - 1. []
 - 2. []
 - 4. [] Forgetting []
 - 1. []
 - 5. [] Retrieval []
 - 6. [] Compression []
 - 1. []
 - 2. []
 - 3. []
- 2. AI []
 - 1. []
 - 1. []
 - 2. []
 - 2. []
 - 1. [] KV cache []
 - 2. []
 - 3. []
 - []
 - 1. []
 - 2. [] []

LLM???????






- 1. LLM []
 - 1. []

2. 
3. 
4.  MoE
2. KVCache 
 1. 
 1.  KVCache  token

 2. 
 3. 
 1.  Latent Chain-of-Thought 
3. 
 1. 
 2. 
 3. 

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1. 
 1.  ...
2. 
 1. 
 2. 
 3. 
 1. 
 2.  prompt
3. 
 1. 
 2.  
 3. 
4. 
 1.  “ ”
 2.  LLM 
 3. 



1. 
2. 
 1. 
3. 
 1. 
 2. 
 3. 
4. 
 1. 

RAG

RAG???

- 1.
 - 1.
- 2.
 - 1.
- 3.
- 4.
- 5.
- 6. prompt LLM
- 7.

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



















- 1.
 - 1. ()
 - 2. ,
 - 3.
- 2.
 - 1. ,
 - 1. “”
 - 2. meaning tree
 - 2.
- 3.
 - 1.
 - 2.
- 4.

??????

- 1. “” AI “”
 “”
- 2. “” “” “” “” “”
 “” HNSW NSG
SSG state-of-the-art

 - 1. HNSW NSG
 - 2.

????

1. 
 1.  -> 
 2. , 
2.  MCP Server
 1. AI
 2. 
3. 
 1. , AI
 2.  JiminI2.0 Pro,  2000 token
4.  RAG **GraphRAG**
 1. LPG labeled property graph
 2.  +prompt 
 1. 
 2. 
 3. 

GraphRAG

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- 1. [] Graph RAG
- 2. [] Graph RAG []
[42] + TuGraph[46]
 - 1. []
 - 2. []
 - 3. []
 - 4. SPG-Reasoner []

DB-GPT[50] + OpenSPG

GraphRAG??

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- 1. []
- 2. [] LPG []
 - 1. [] prompt [] LLM [] LLM []
 - 2. []
 - 3. []
- 3. []
 - 1. []
 - 1. [] node group []
 - 2. [] Node2Vec []
- 4. node group [] -- []
 - 1. LLM [] node group []
 - 1. []
 - 2. []
 - 2. []
- 5. []
 - 1. [] TextUnits
 - 1. []
 - 2. []
 - 2. []
 - 1. []
 - 2. []
 - 3. []
 - 4. []
- 6. []
 - 1. [] UMAP [] 2D []

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- 1.
 - 1.
 - 2. Node Node
 - 1. MapReduce
 - 3. + + LLM
- 2.
- 3.
 - 1. node

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- 1.
 - 1. “A B”
 - 2.
 - 3.
- 2.
 - 1.
- 3. prompt
 - 1.
- 4.
 - 1.
- 5.
 - 1. token
- 6.
 - 1. “xxx”
 - 2. ### xxx ### xxx ### xxx ###

???

- 1.
 - 1.
 - 1. label
 - 2. prompt
 - 3.
 - 1.
 - 2. Reasoner