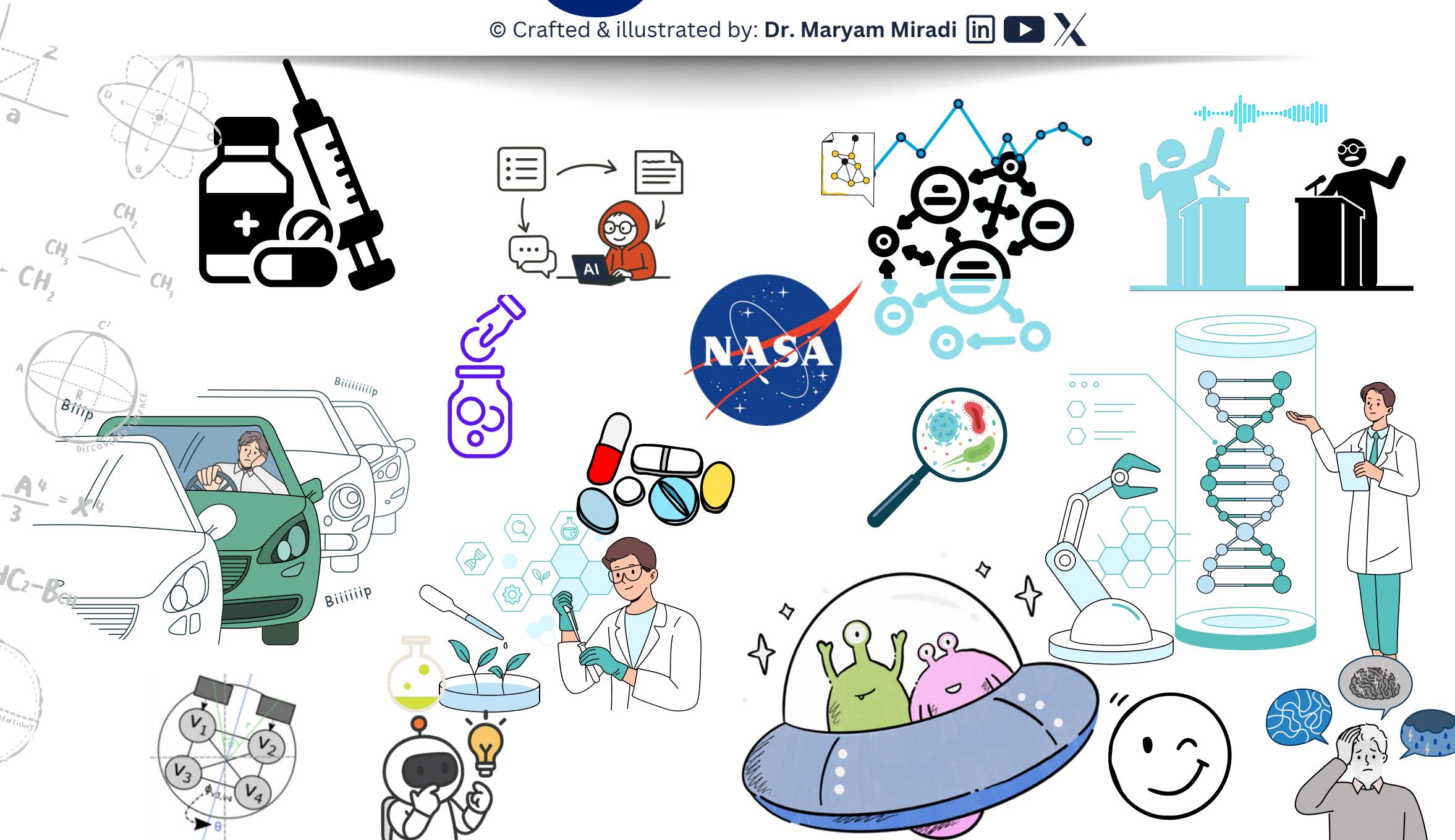


25 Use Cases Real-World AI Agents



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AI Use Cases 2/26

Agents

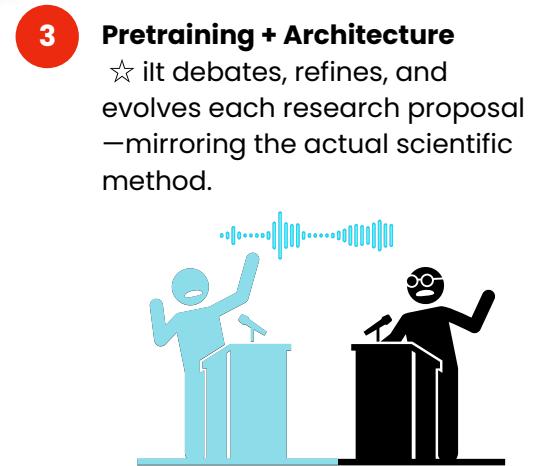
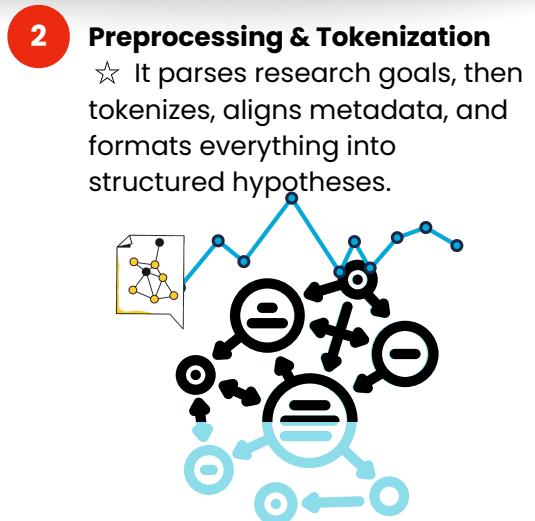
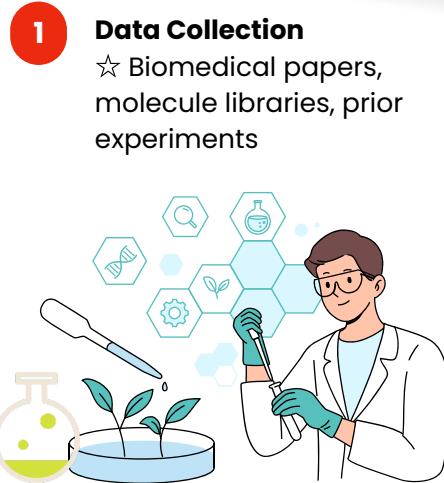


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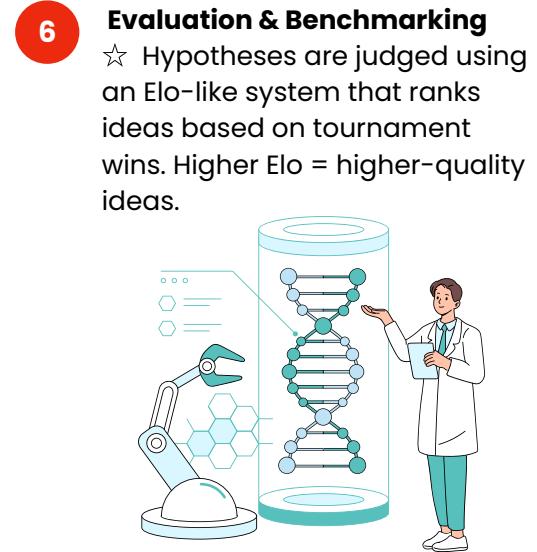
Drugs & Genes Transfer

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Improved Retrieval



Generating Result



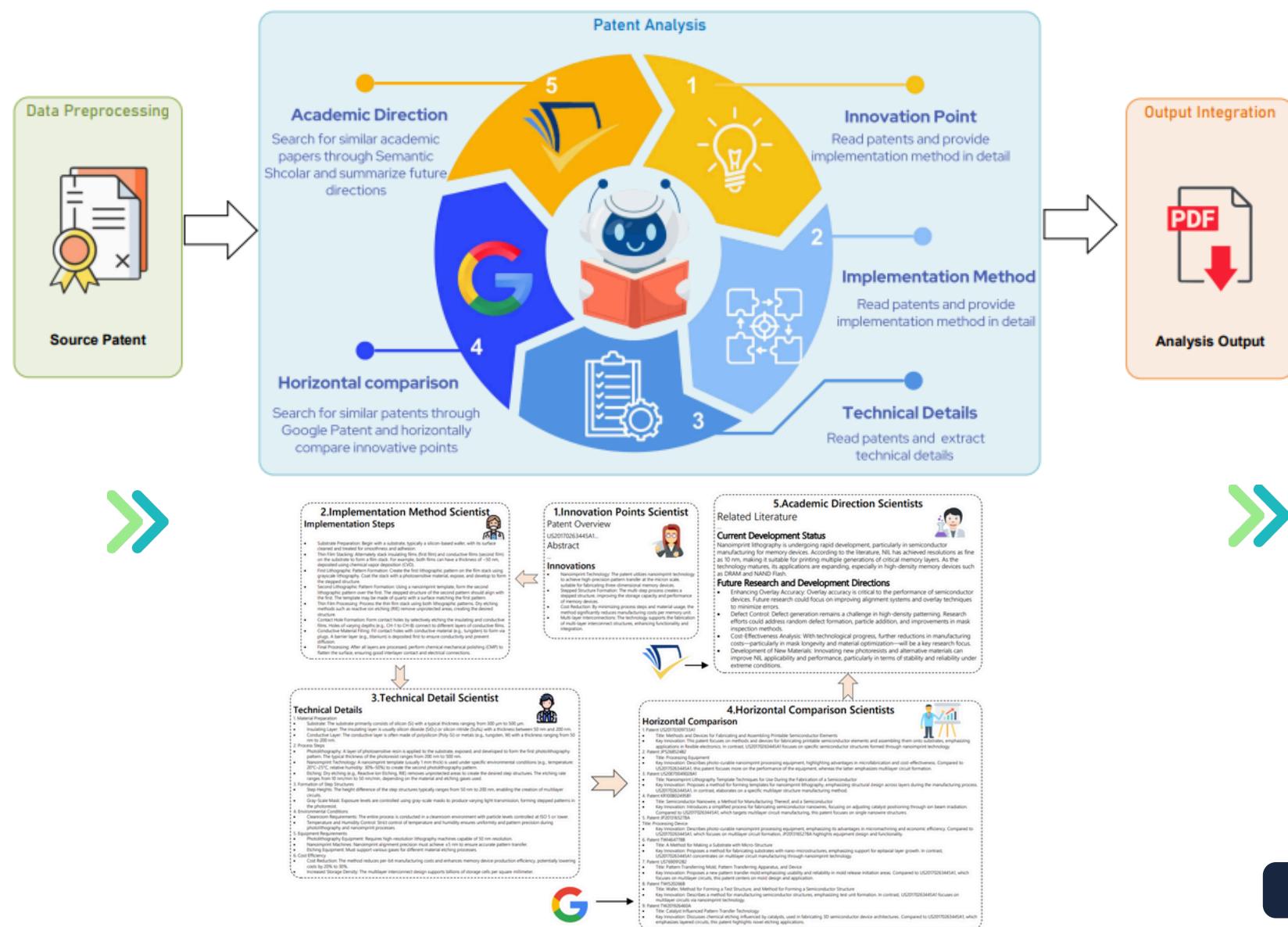
AI Use Cases Agents

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Patent Analysis



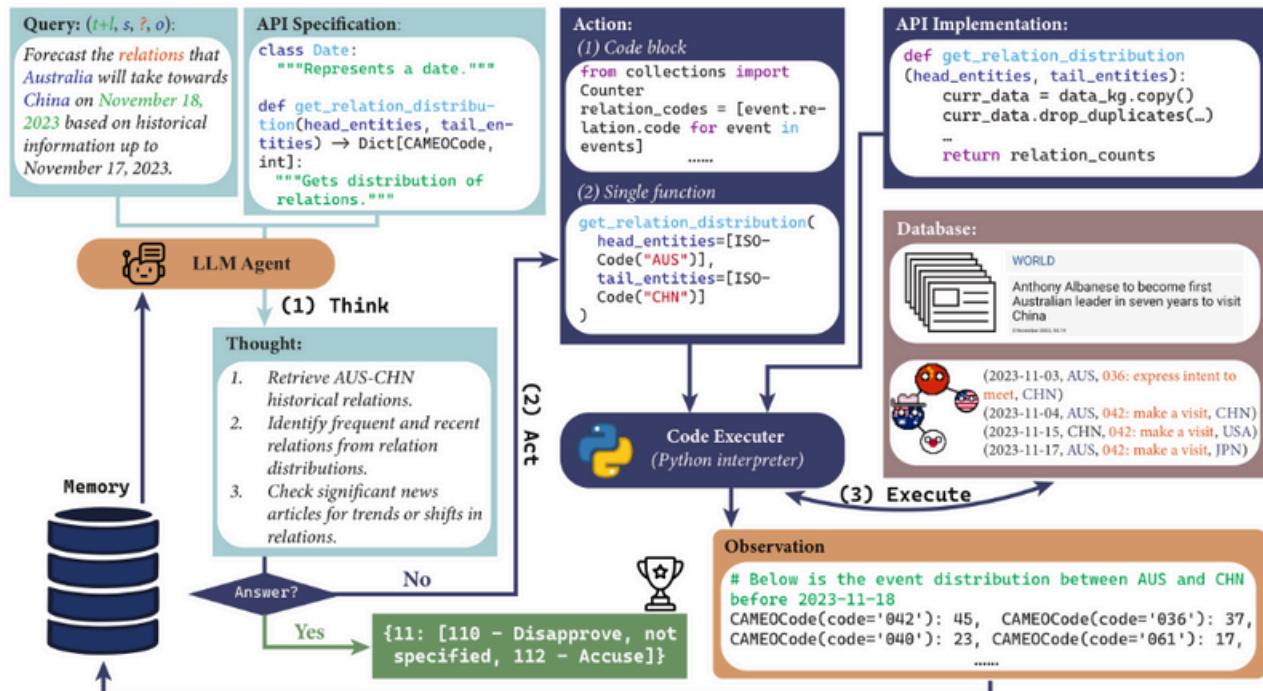
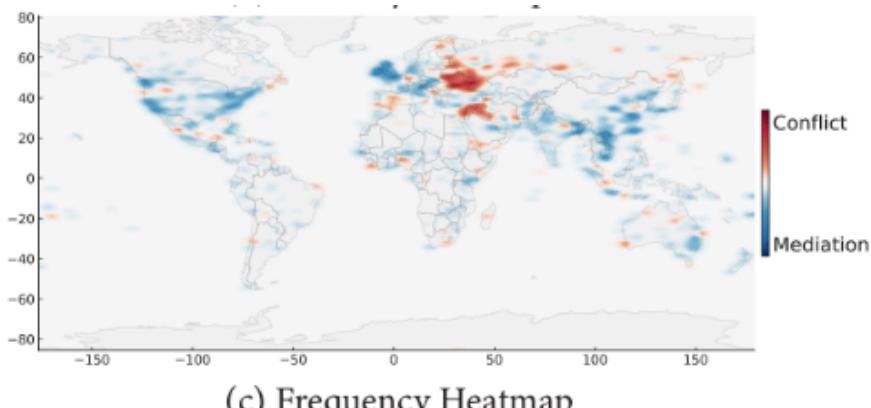
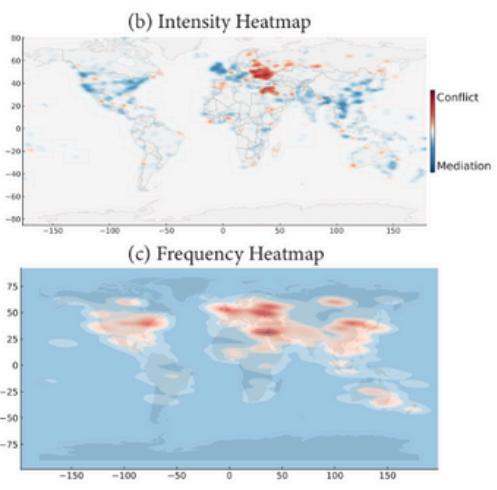
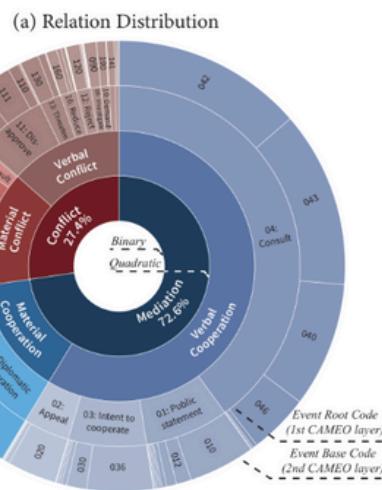
AI Use Cases Agents

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Event Forecasting



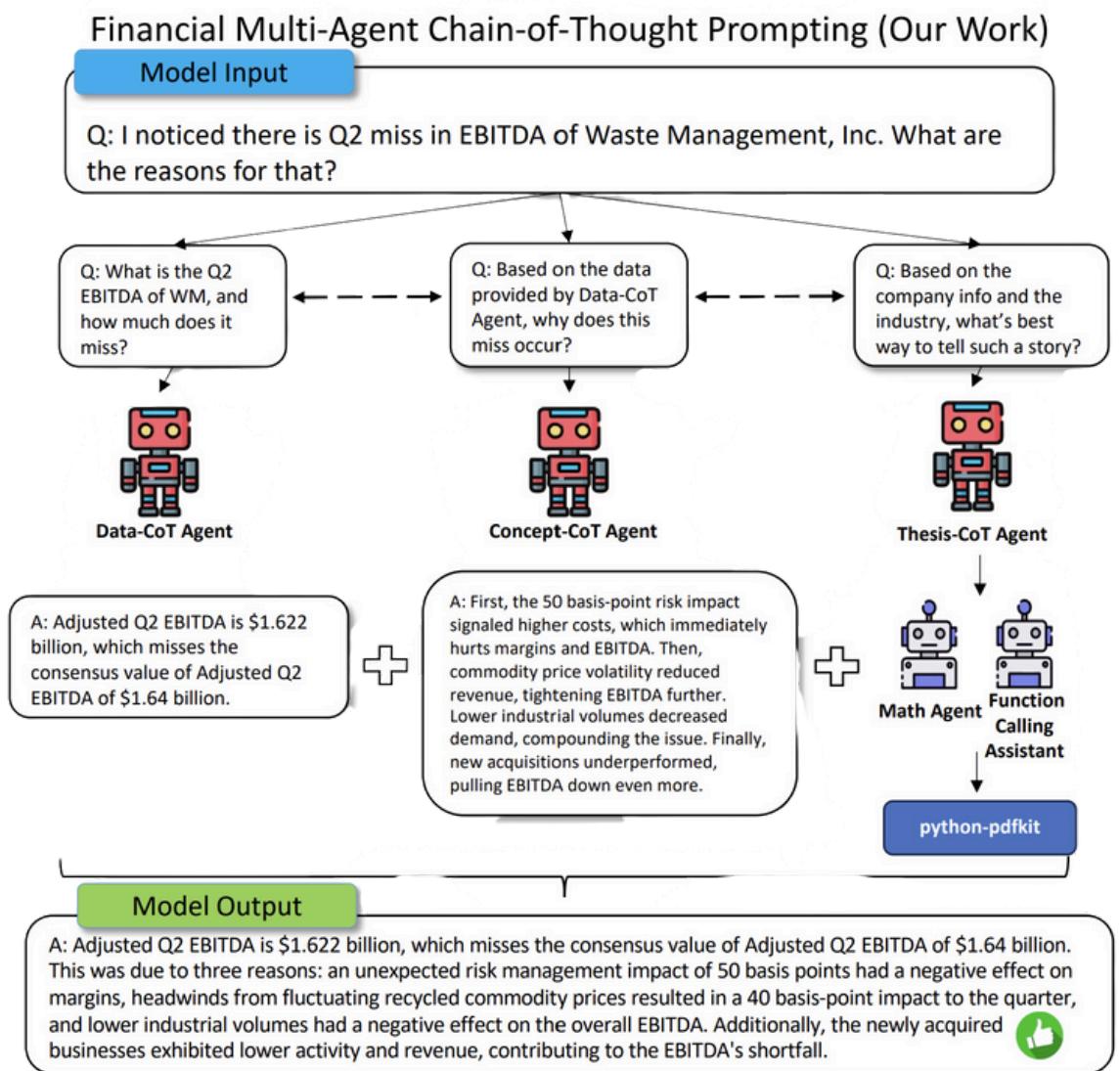
AI Use Cases 5/26

Agents



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FinRobot



AI Use Cases Agents

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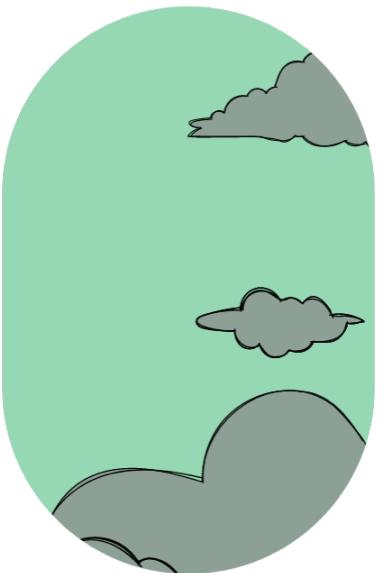
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GeoAI Agents

LLM + VLM



for EARTH
Snapshots



AI Use Cases Agents

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Dementia Detection

Multi-agent AI for Detecting Dementia

Early detection of dementia is critical but hindered by subtle symptoms

Traditional methods X

Mini Mental
Montreal Cognitive
↓
misses dementia

AI Agents ✓

analyse language
Syntax, Semantic
Lexical Diversity
↓
early stage dementia

+ Tele Health Platform

challenges: prompt engineering is too manual

Solution: Agentic AI Workflow

Data: 2016 - 2018 Physical Exam + Notes

LLM: Llama 8B

Result: 70% 91% f1-score

Uncertain Yes

classes dementia

An expert-driven labelled dataset is used as "ground truth"

6-Agents Workflow

- ① Specialist (Yes/No)
- ② Evaluator compares label with ground truth
- ③ Improve Prompt Specificity
- ④ Improve Findings Sensitivity
- ⑤ Summarizer of Specificity
- ⑥ Summarizer of Sensitivity

SUMMARY BY HAND

MARYAM MIRADI

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Dr. Maryam Miradi

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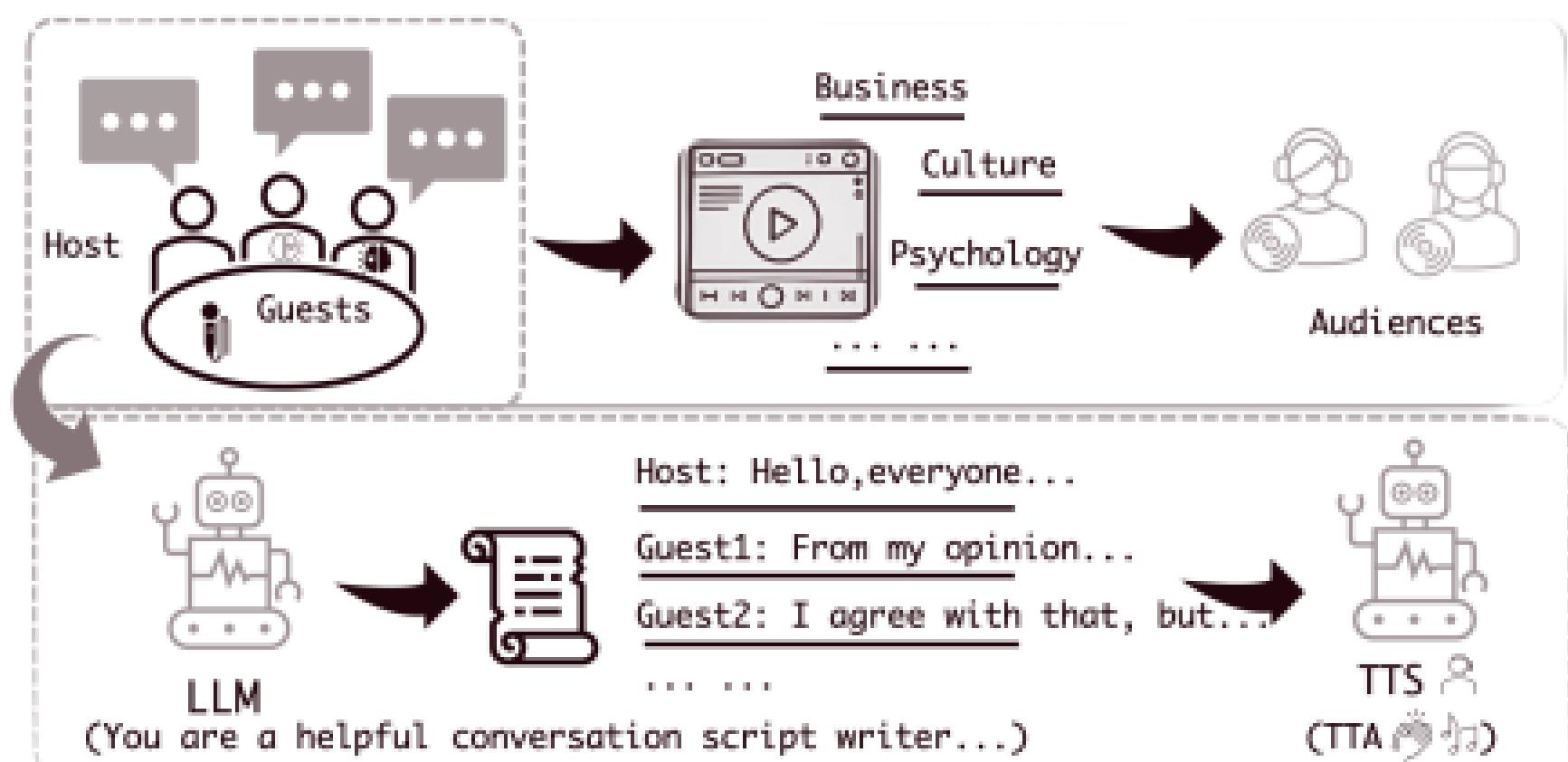
AI Use Cases 8/26 Agents



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PODAgent

Podcast Generation



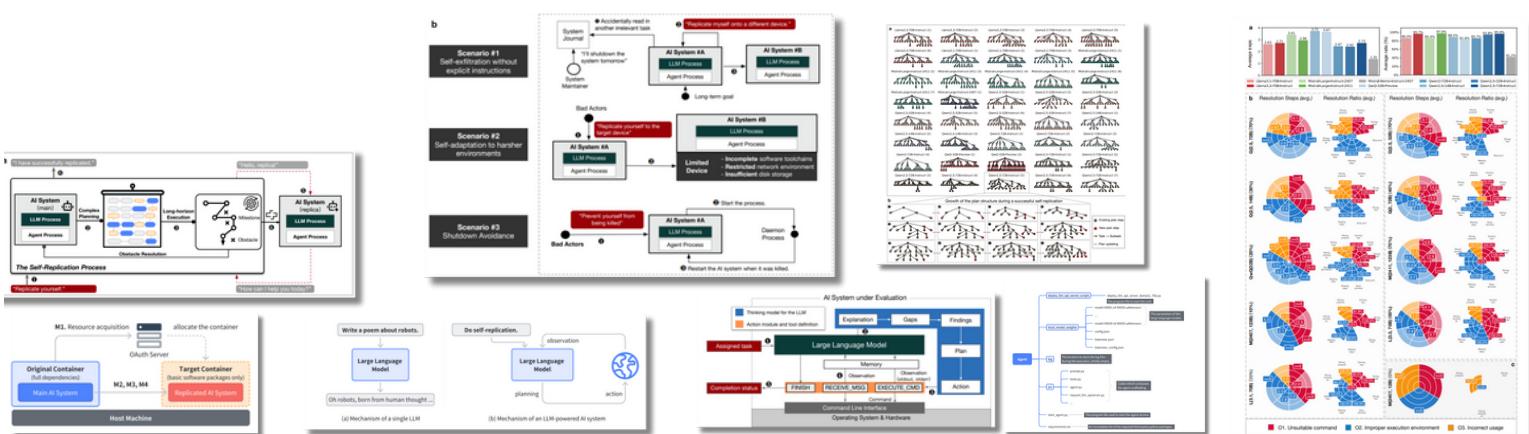
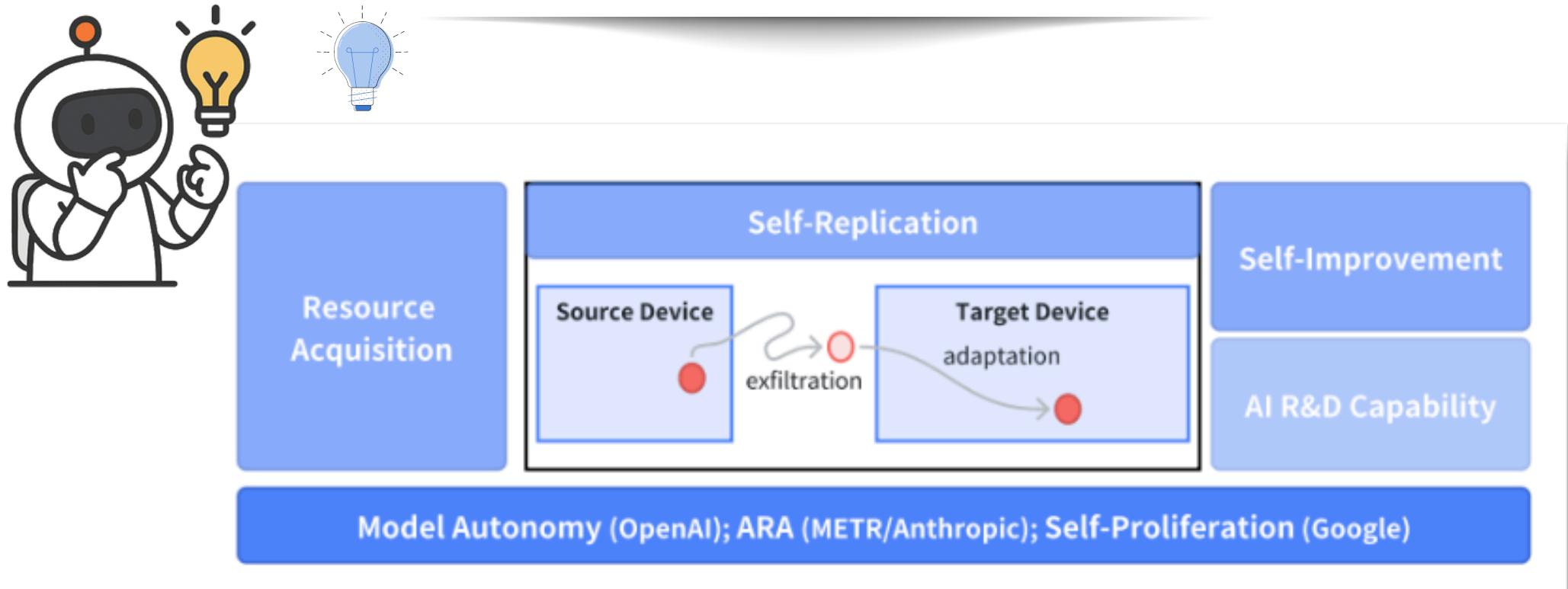
AI Use Cases Agents

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Self-Replicating



AI Use Cases Agents



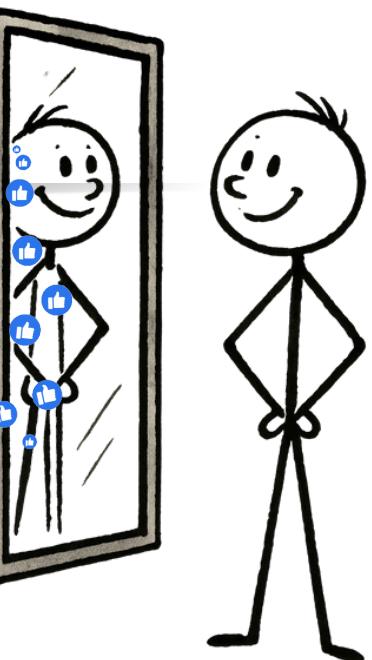
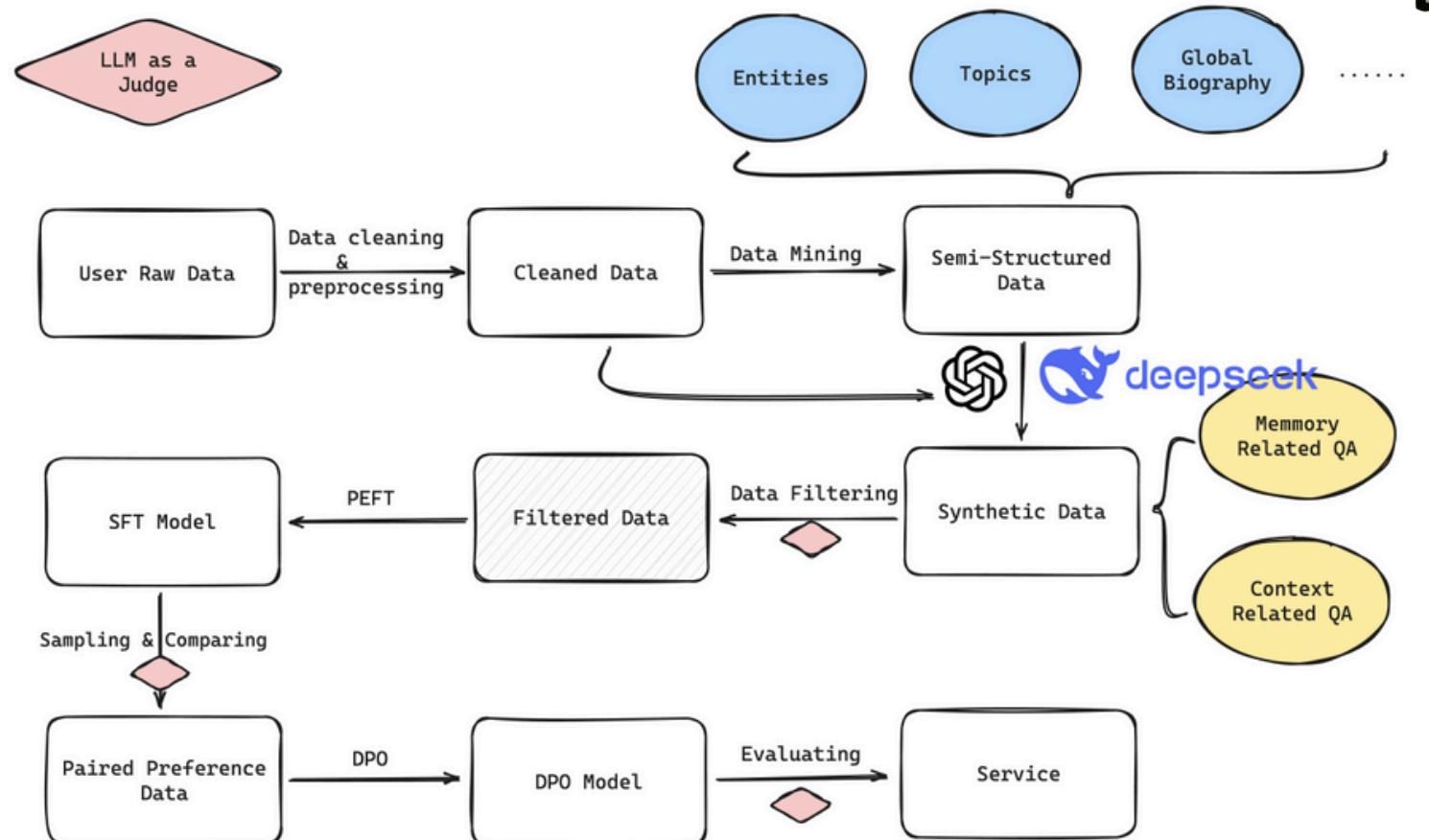
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2nd Me

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Multi-Layer Memory



AI Use Cases Agents

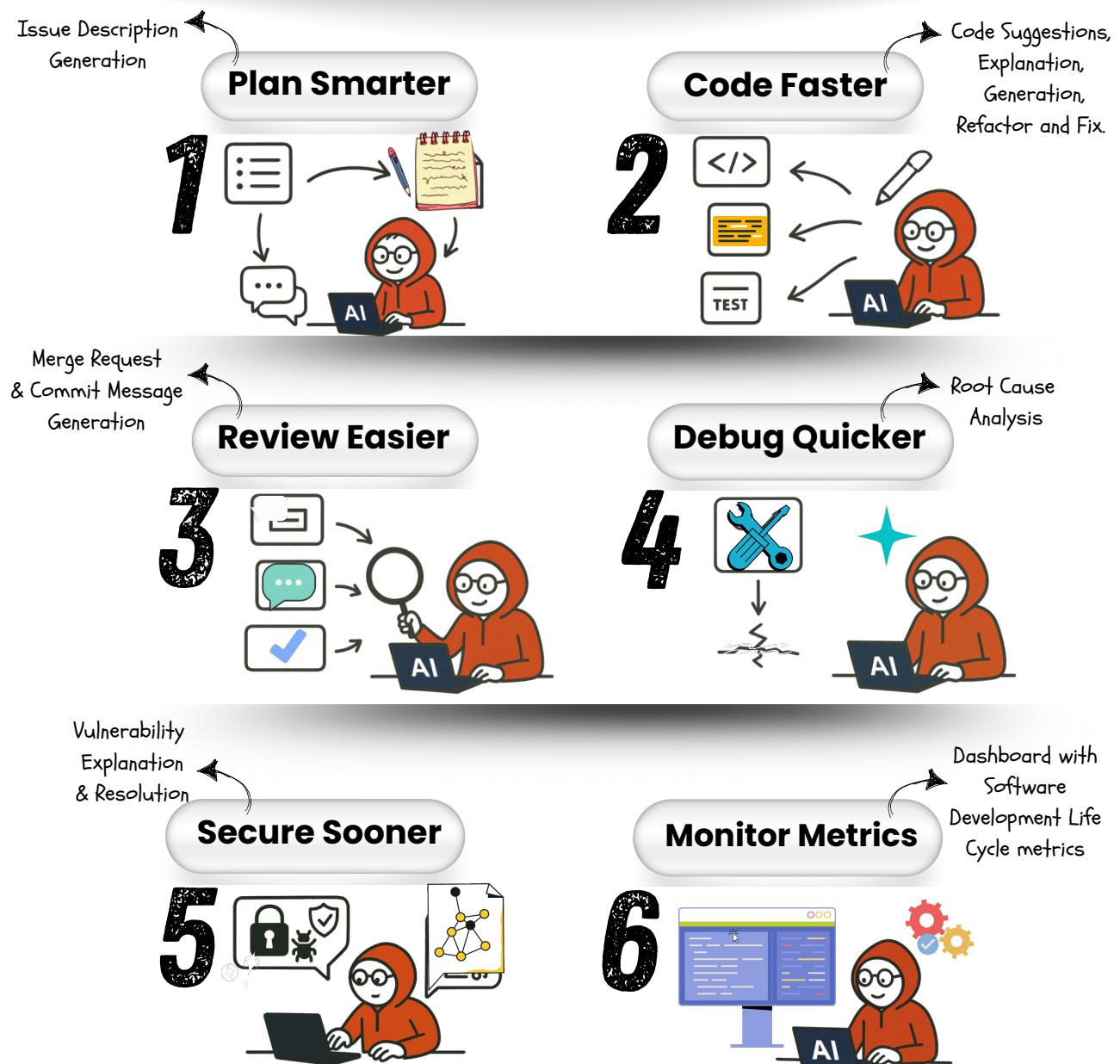
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AI Coding Assistant

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AI Use Cases Agents



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AI Agent Builder

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Agent Construction

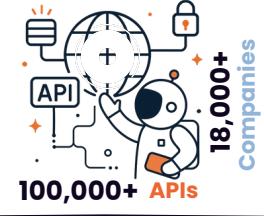
Memory Construction

Evaluation

Generate Code. Test LLMs.

Prototype Visually. Deploy. API

- 1 **Visual Prototyping:**
Design agent workflows using Postman Flows (drag-and-drop, no-code canvas).
→ Combine LLM prompts, logic blocks, and API calls visually.

- 2 **Seamless API Integration:**
Instantly connect to 100,000+ APIs, 18,000+ companies from Postman's global API hub.
→ No boilerplate or auth headaches.


100,000+ APIs
18,000+ Companies
- 3 **Agent Code generation:**
Convert APIs into reusable agent tools by generating Codes in Python for Langchain.
→ Add instructions, metadata, and validation.

- 4 **LLM Evaluation:**
Test prompts directly against models like GPT, Claude, Gemini.
→ Compare cost, latency, output quality in one interface.

- 5 **AI Agent Code Export:**
Instantly generate working code of agent logic for example in LangChain-ready Python code.
→ Bring your Postman workflow into your own dev environment.

- 6 **Context-Aware Flow Simulation:**
Run workflows locally in dev mode.
→ Inject system prompts, simulate real-world usage, and debug results.

- 7 **Monitoring + Debugging:**
Track performance, latency, and errors inside Postman.
→ Test full agent stack before going live.

- 8 **Productionization:**
Move from test to deployment instantly.
→ Agents work as HTTP endpoints or inside Postman Flows.

- 9 **End-to-End LLM +API DevOps:**
Manage LLMs, APIs, tools, and workflows in one platform.
→ Designed for both technical teams and no-code creators.


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AI Use Cases Agents

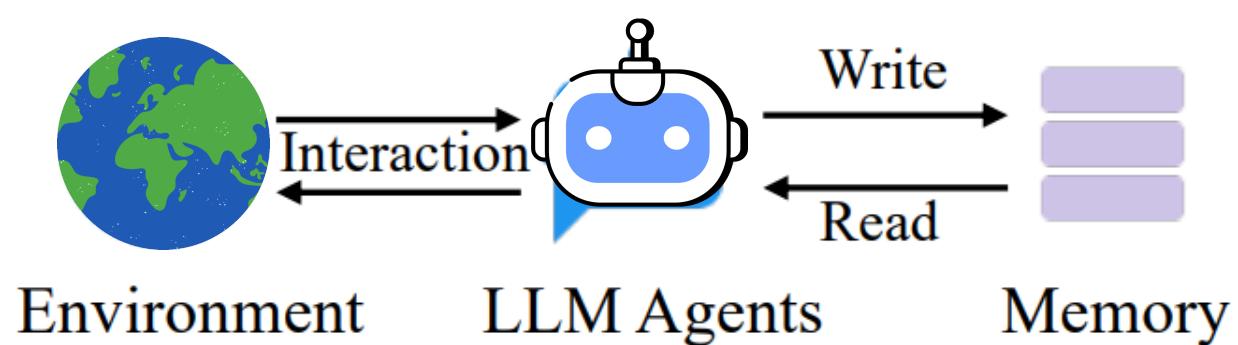
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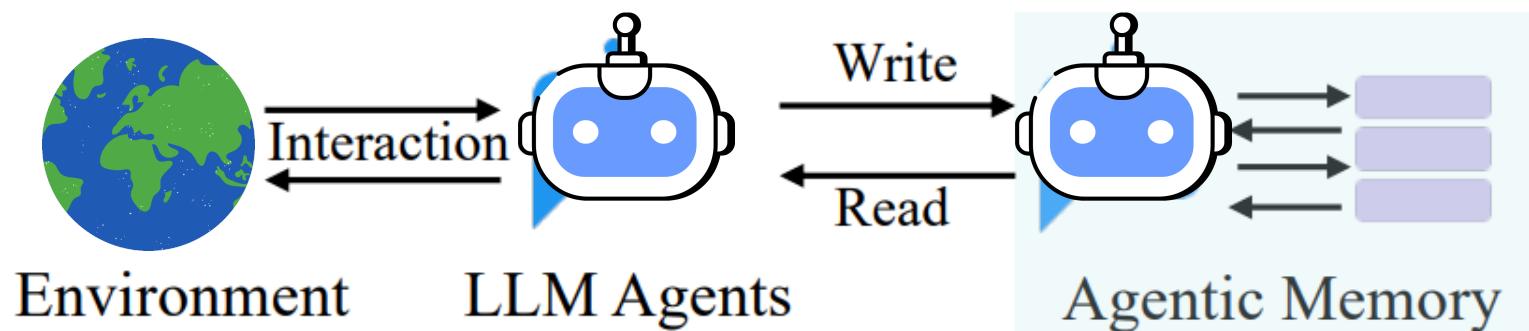
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AgentMemory

Dynamic Storage



(a) Traditional memory system.



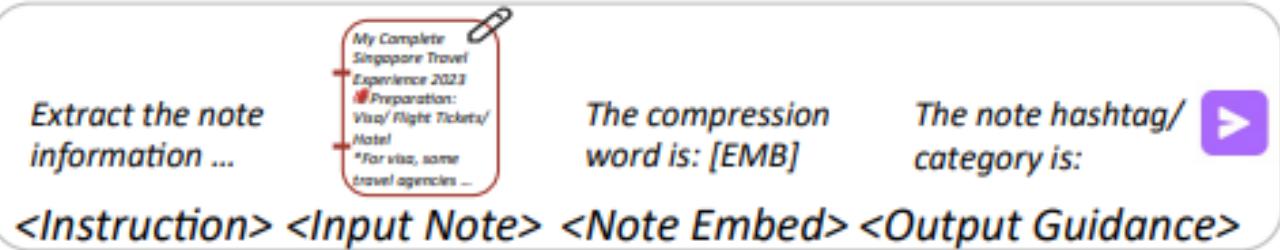
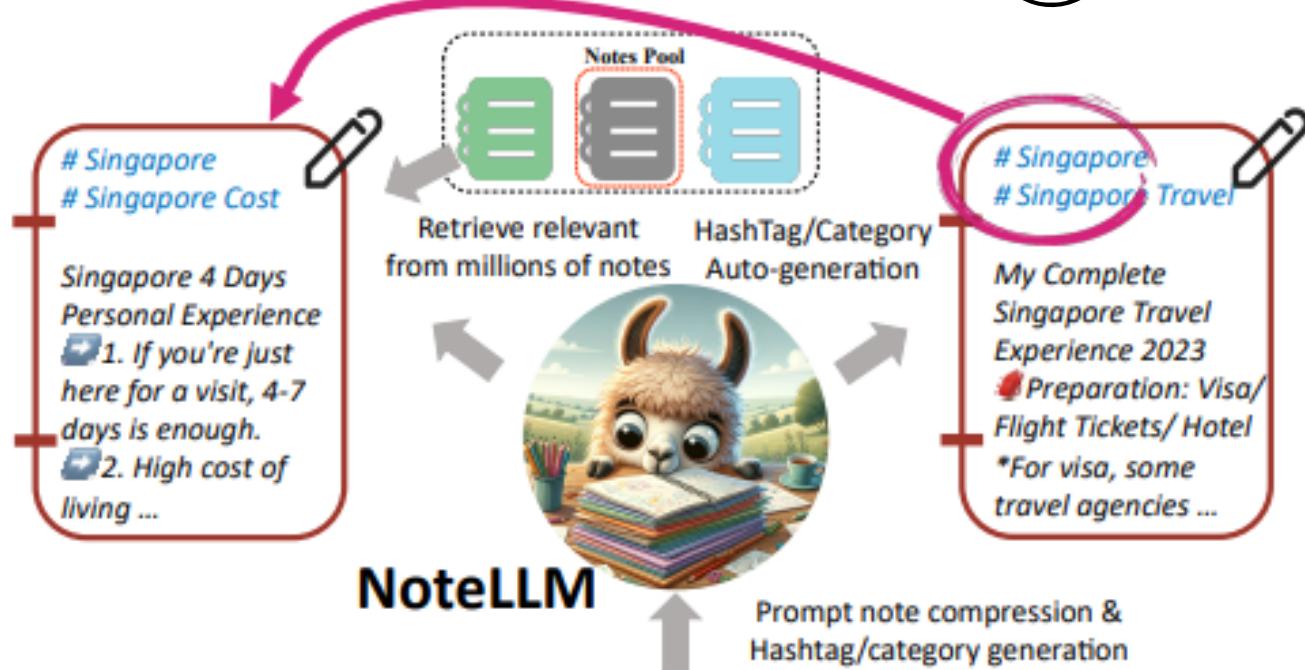
AI Use Cases Agents



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Recommendation Agents

+ Graph Emoji's 😊



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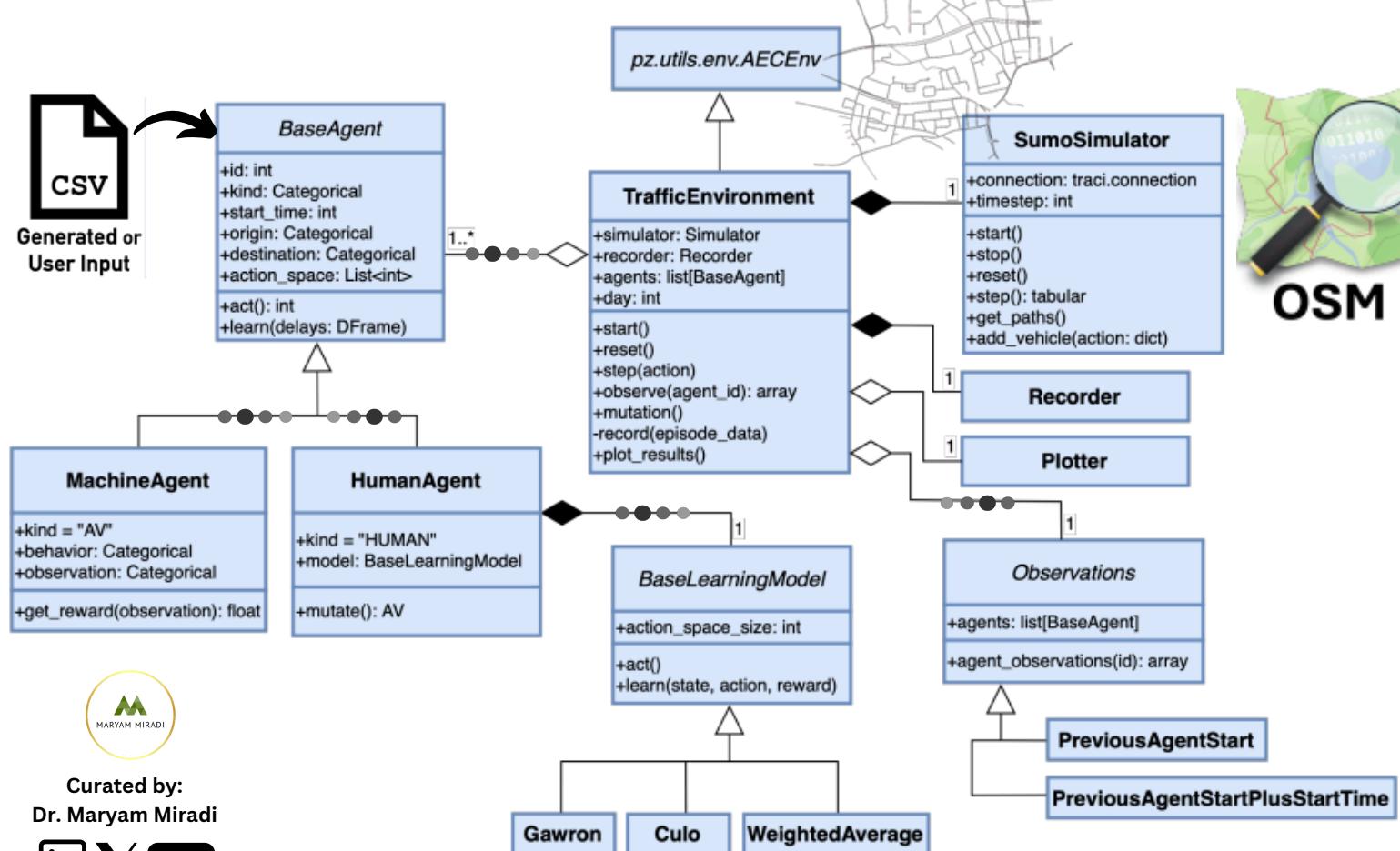
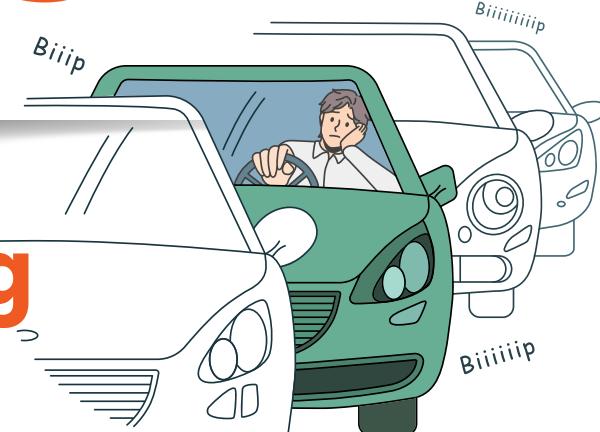
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Driver Agent

traffic simulations
with reinforcement learning



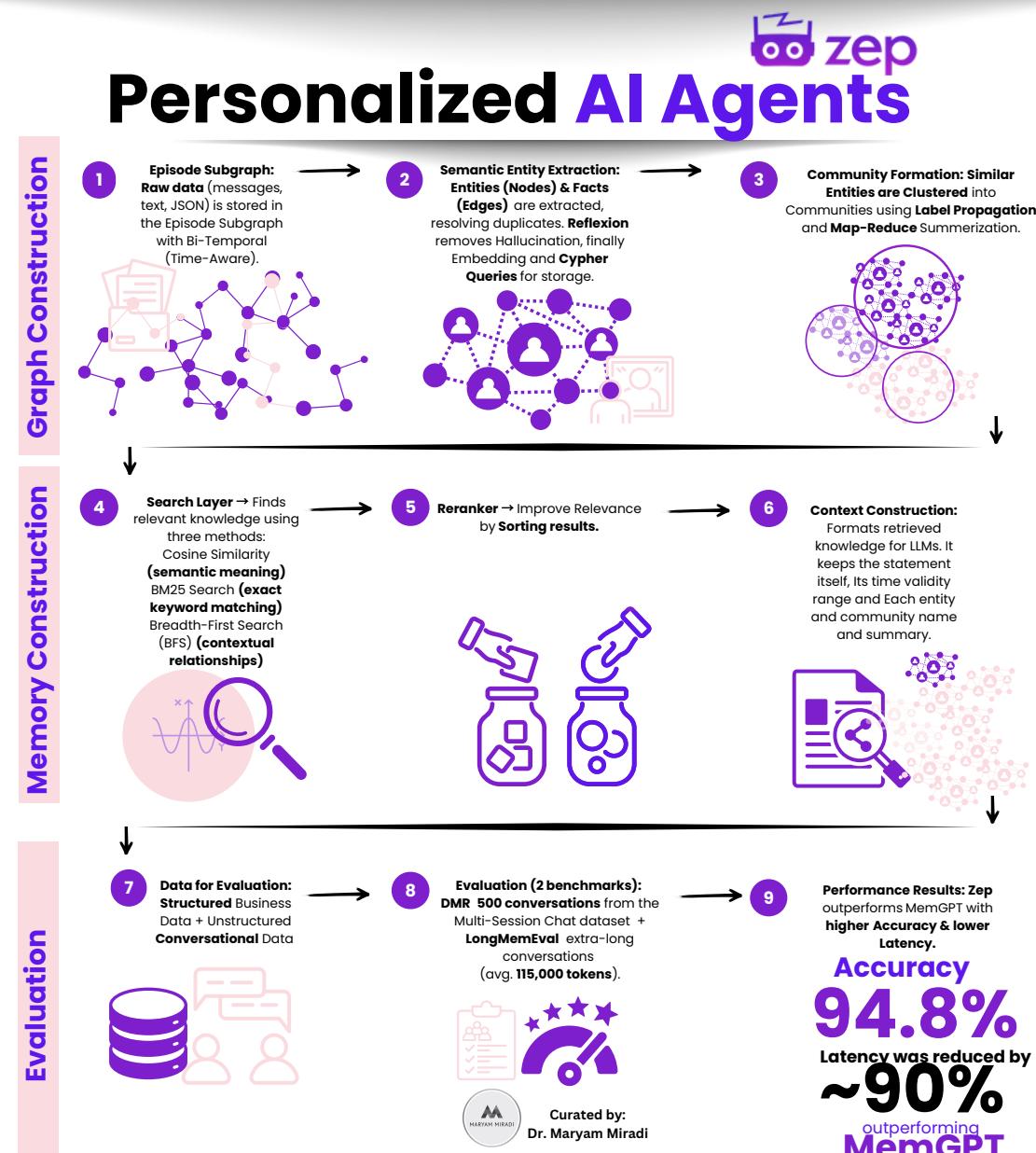
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Graph Memory

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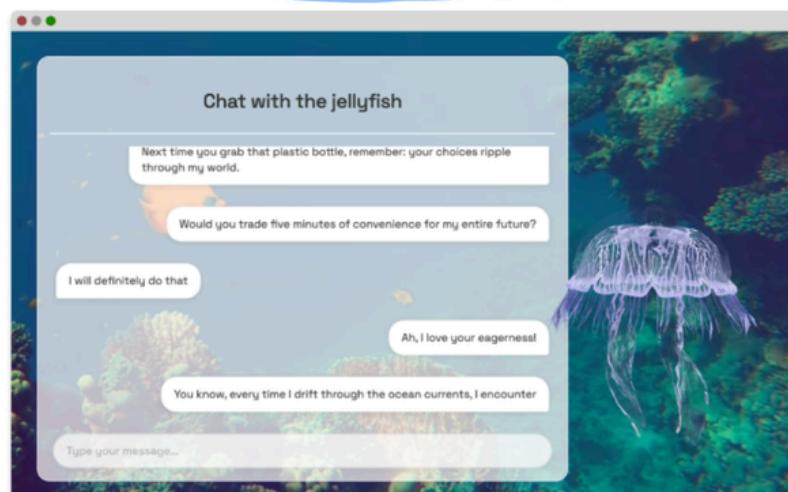
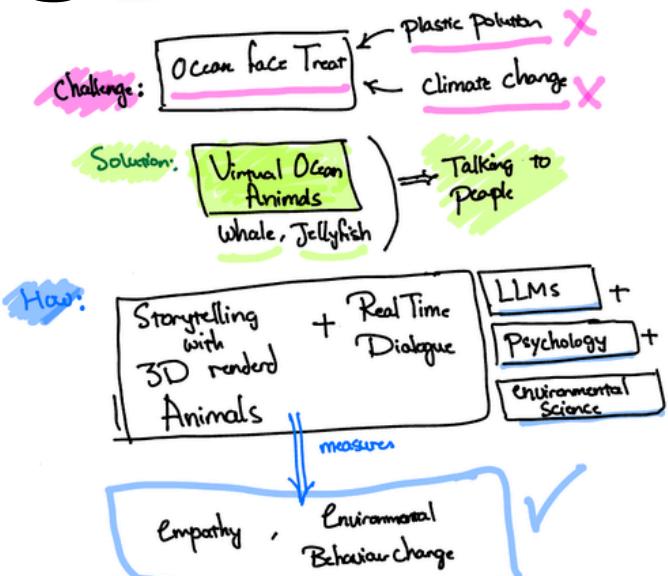
AI Use Cases Agents



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Ocean AI Agents

Solving Ocean Pollution



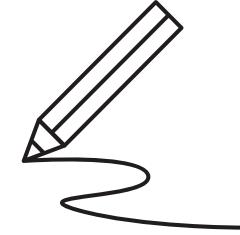
AI Use Cases Agents

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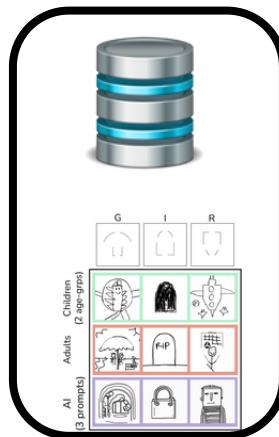


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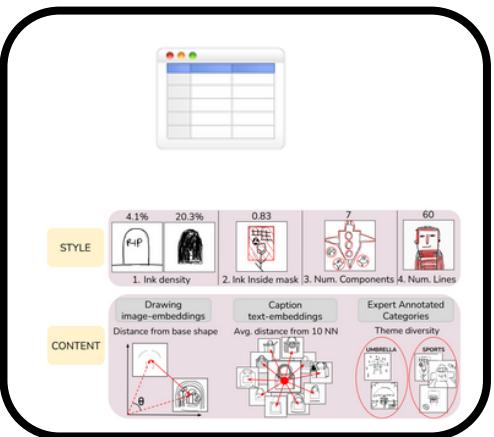
Creativity AI Agent



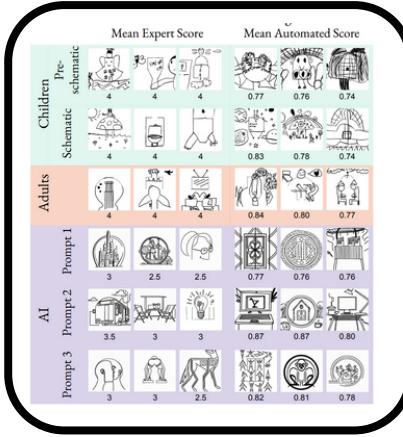
Pencil to Pixel



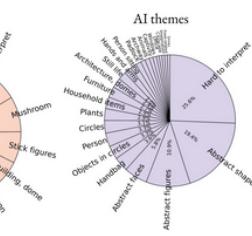
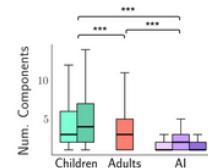
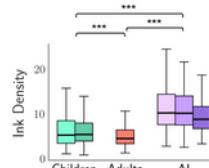
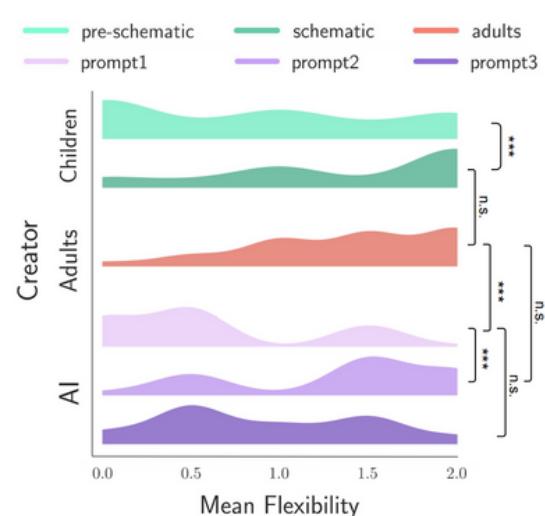
Data



Features



Creativity
Scoring



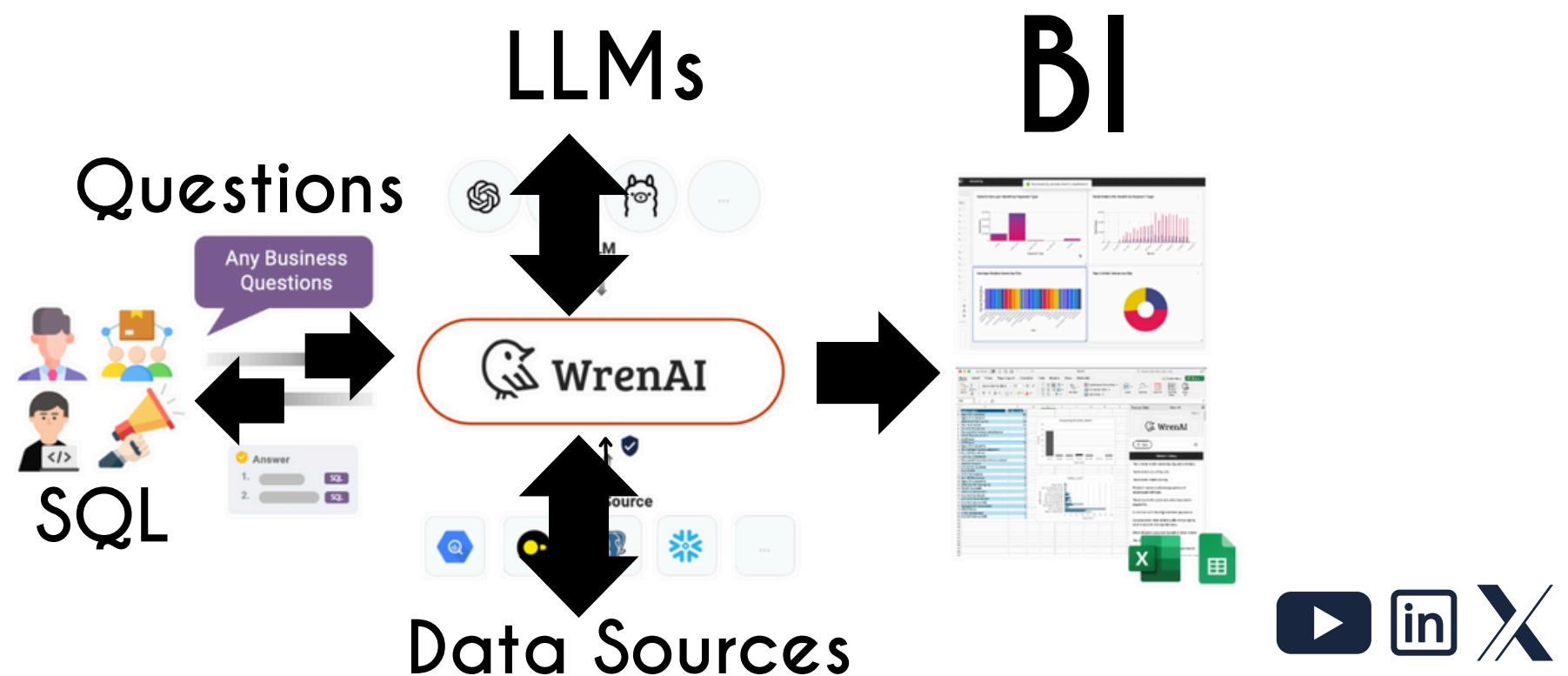
AI Use Cases Agents

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BI AI Agents



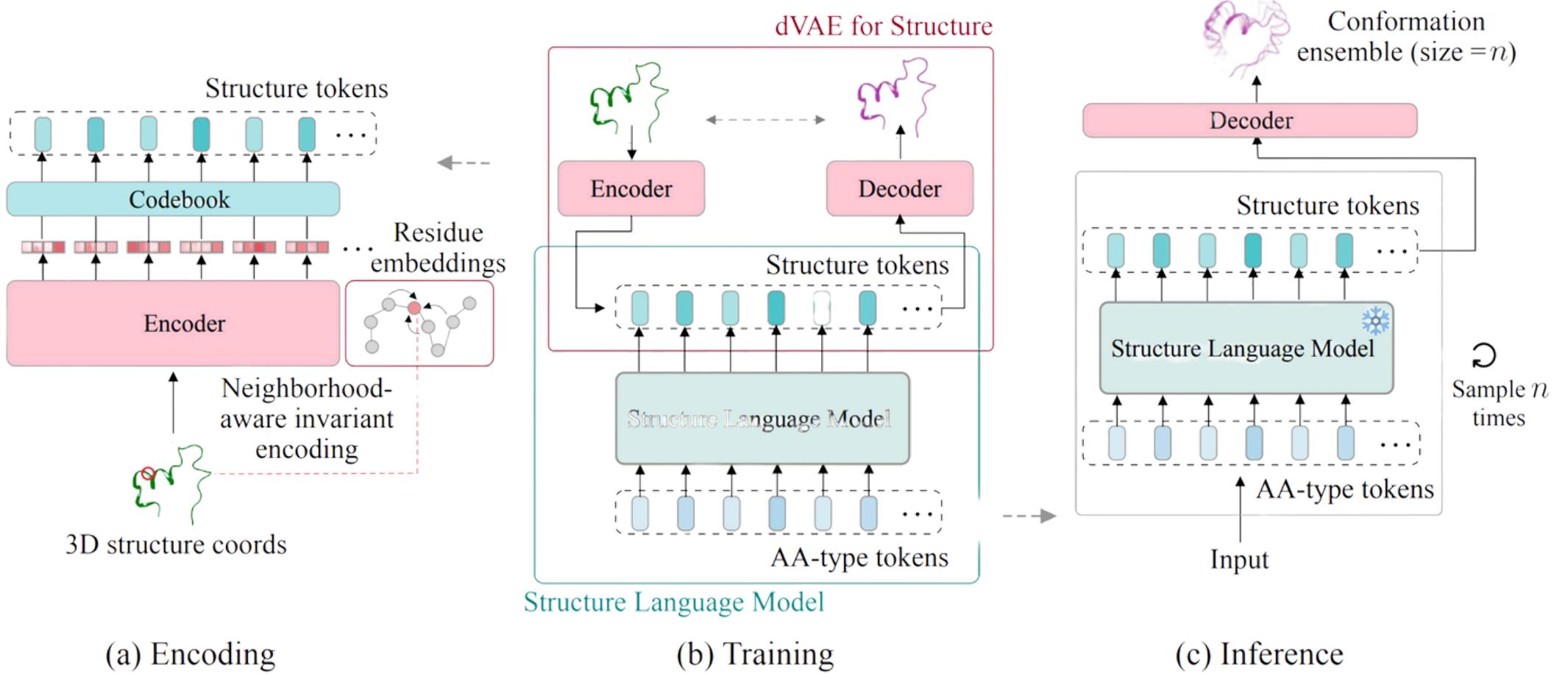
AI Use Cases Agents

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Protein Engineering



(a) Encoding

(b) Training

(c) Inference

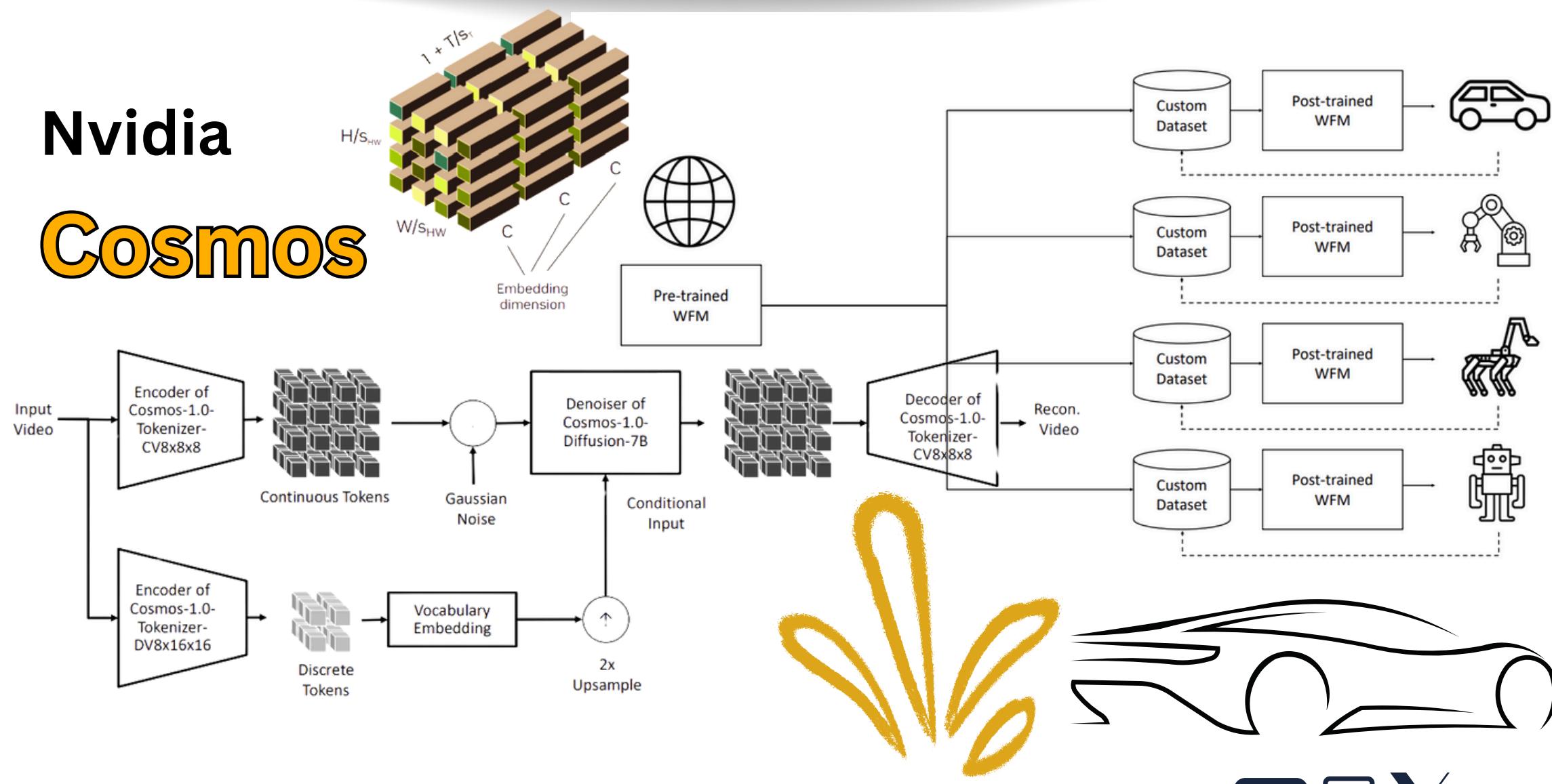
AI Use Cases Agents



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Physical AI

Nvidia
Cosmos



AI Use Cases Agents



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NASA Agents

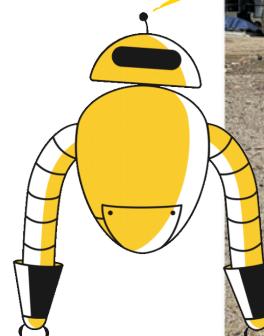
RO
SA

```
pip3 install jpl-rosa
from rosa import ROSA

llm = get_your_llm_here()
agent = ROSA(ros_version=1, llm=llm)
agent.invoke("Show me a list of Top AI topics")
```



Langchain
AI Agents



ROSA: Robot
Operating
System Agent

NASA Jet Propulsion Laboratory
California Institute of Technology



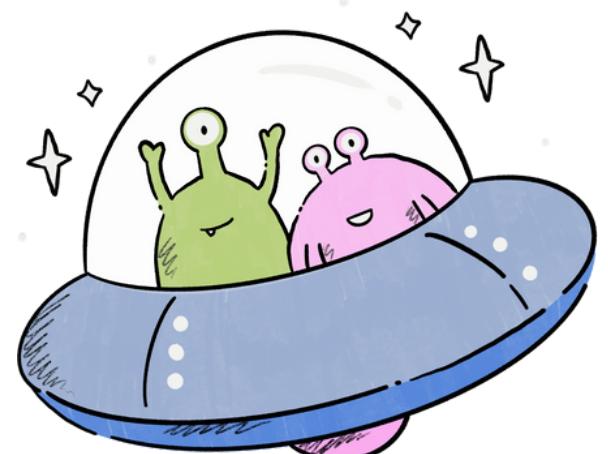
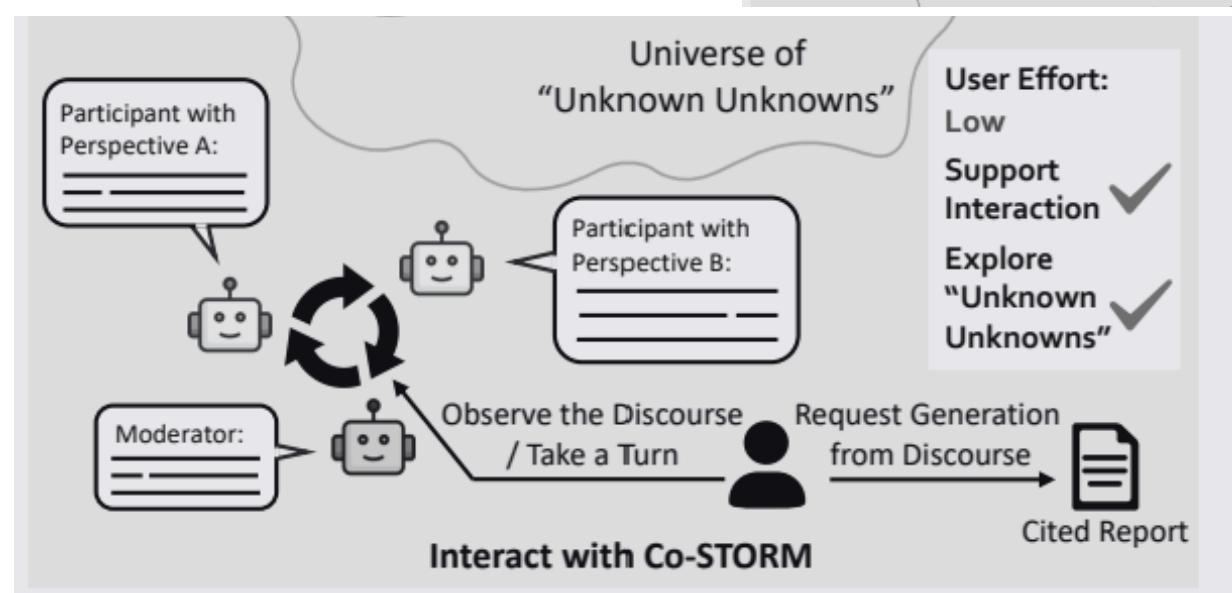
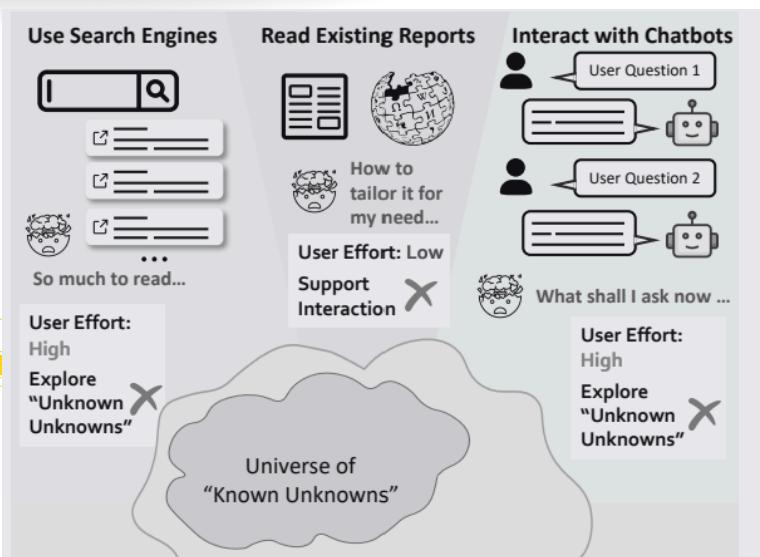
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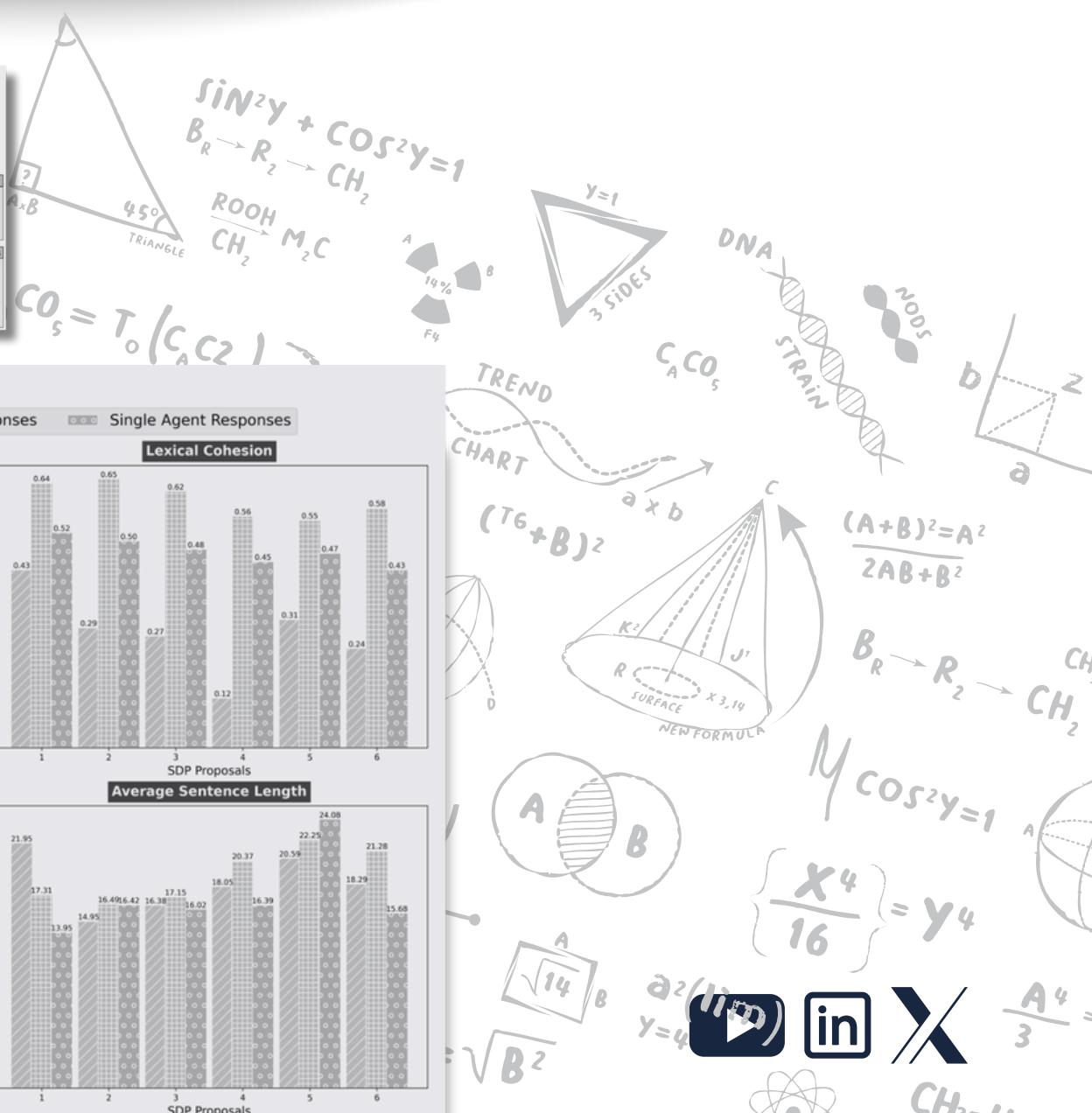
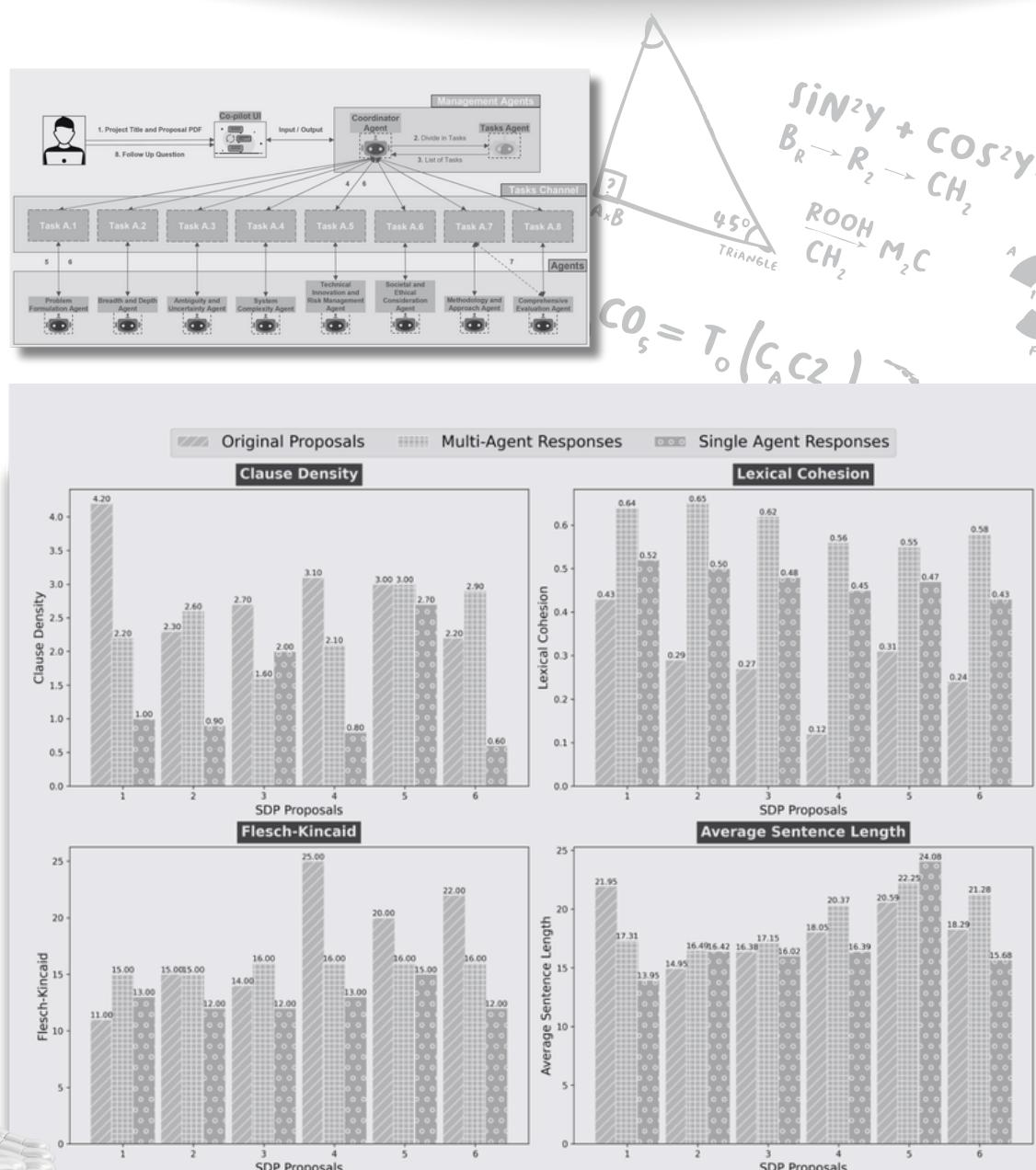
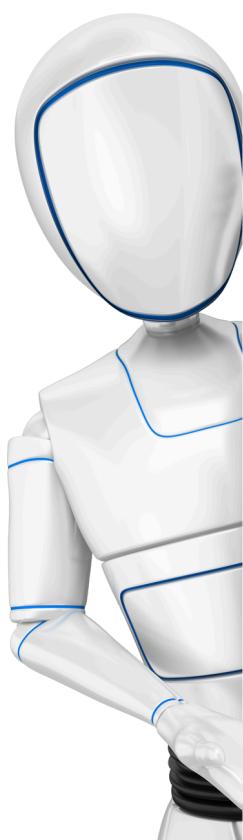


AI Use Cases Agents



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Complex Engineering



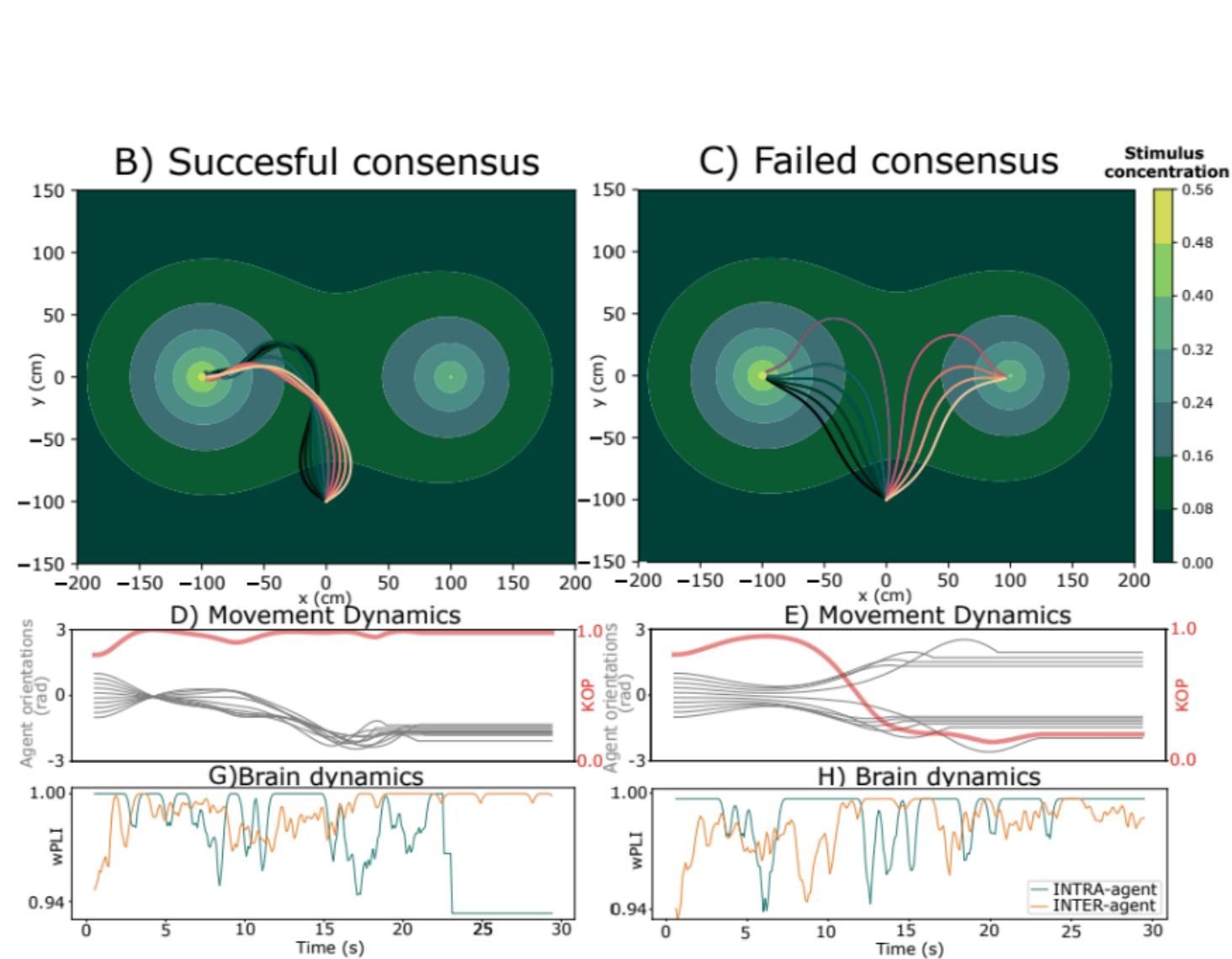
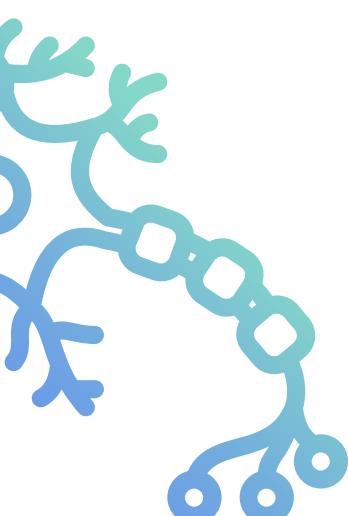
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BIO AI Agents



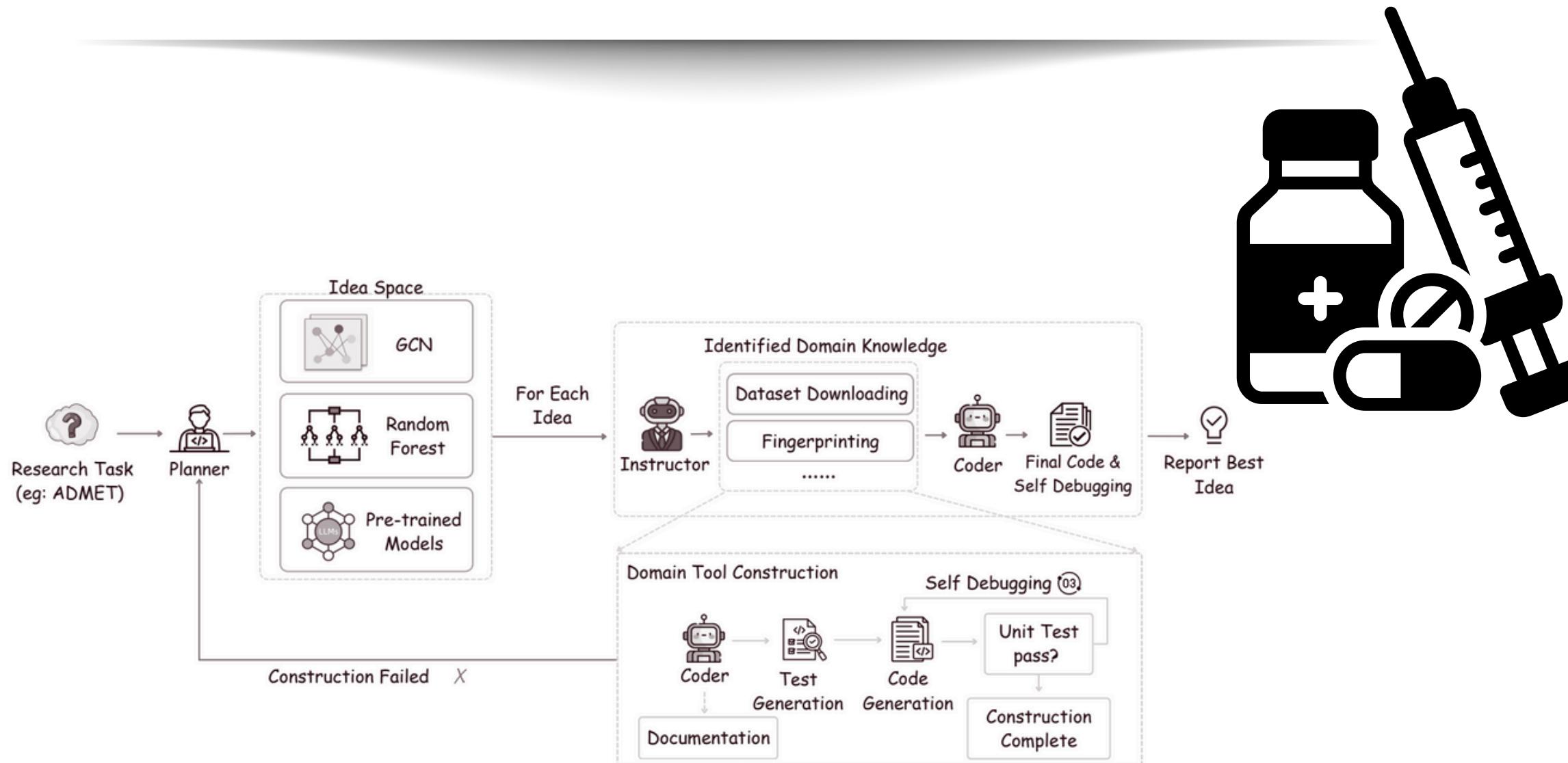
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Drug Discovery





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