



Perception

Visual Text
Sound Time

## Memory

**Short-term** 

Long-term

## **Future**



Efficient Hierarchical Memory Self-Updated Memory

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**Better Explanability** 

**Better Fusion of Modalities** 

Causal Aware Reasoning Multi-Domain Dynamic Reasoning Reasoning

COT TOT

ReACT Reflex

Metacognition
Conciousness
Self-awareness
Self-evolve



**Better Self-Evolvement Self-Motivation** 

(b)