

welcome SLUGgers 🎉

hi, i'm om(r)

AIOS

Ilm agent operating system

agent

ex: swe agent

agent os

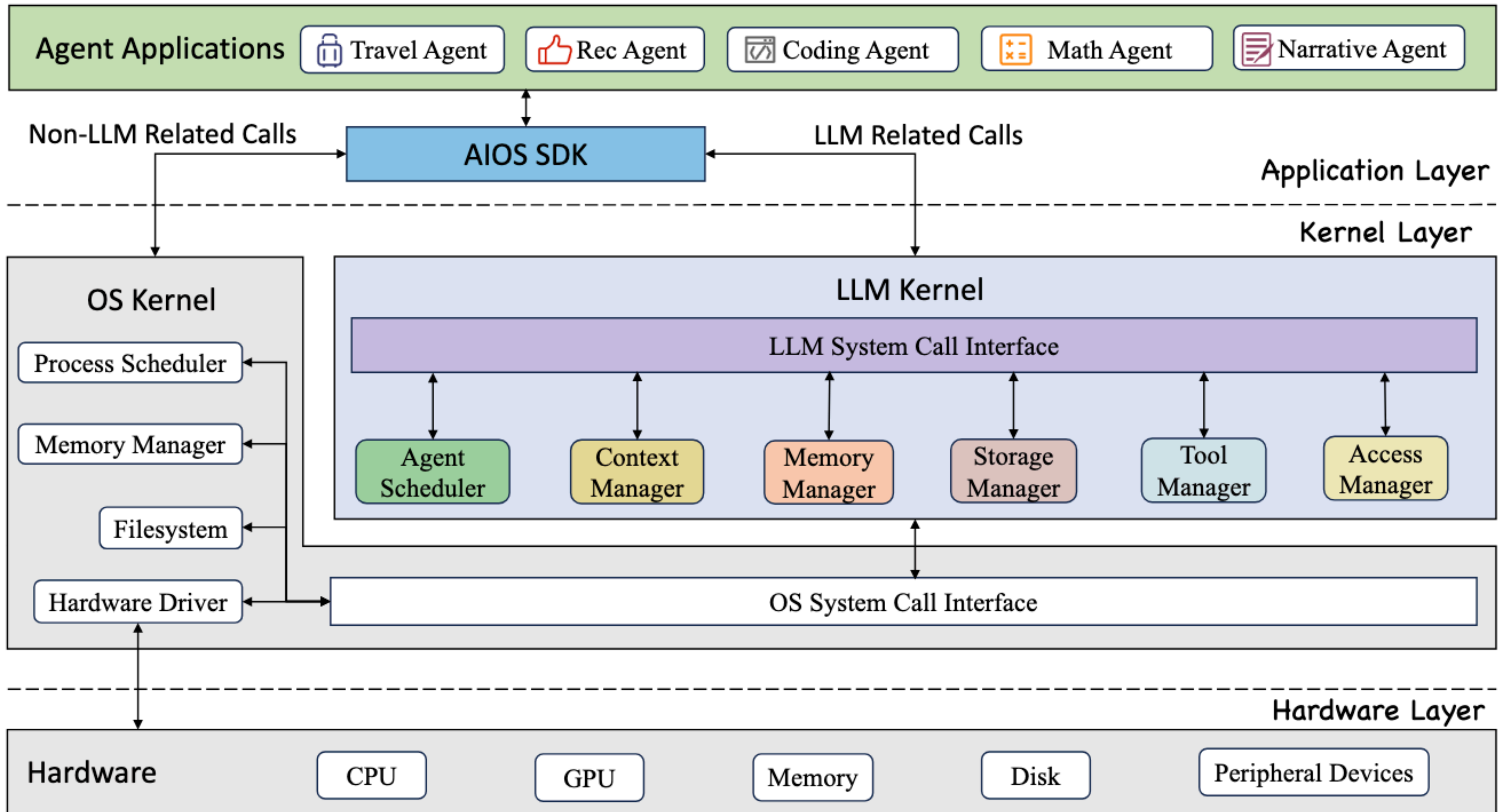
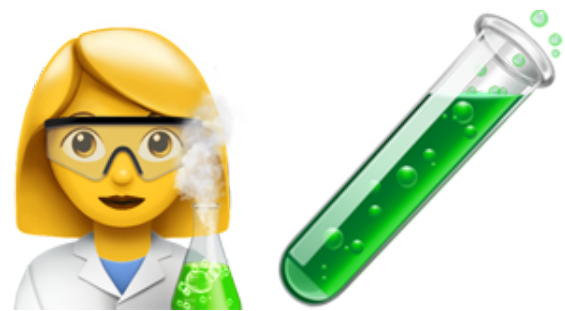


Figure 2: An overview of the AIOS architecture.

meet mike



mike is an undergrad at rutgers



**"i wanna research sociology in
china, make it possible"**

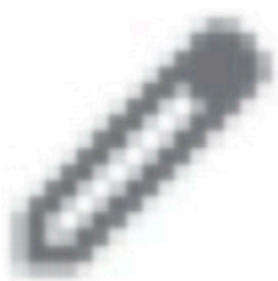
Smith and Jackson Scholarship



in wuhan

mannan





Compose



Inbox

9 99,999,999

Always on the phone.

**auto email --> calendar ics
invite**





autonomy 🔥

demo



AIOS

Agents

Chat

+ New Chat



Current



Sample




AIOS v1 Beta

@ an agent to talk to AIOS...

AIOS – The future of AI Agents

https://my.aios.foundation/chat

The Guitarist's Guid... Greedy Algo Abdul ... Install this script research ms Tum hi ho (Ashiqui ... Let's build GPT: fro... ms Sun Raha Hai na tu ... Afreen Afreen - Guit... https://probml.githu...


 **AIOS** Agents Chat

+ New Chat

Current

Sample

AIOS v1 Beta

 **You**
@example/MathAgent what's 90+4


@ an agent to talk to AIOS...


AIOS could make errors. Consider checking important information.



AIOS – The future of AI Agents



https://my.aios.foundation/chat

The Guitarist's Guid... Greedy Algo Abdul ... Install this script research ms Tum hi ho (Ashiqui ... Let's build GPT: fro... ms Sun Raha Hai na tu ... Afreen Afreen - Guit... https://probml.githu...


 **AIOS** Agents Chat


+ New Chat 

Current  

Sample  

AIOS v1 Beta

 **You**
@example/MathAgent what's 90+4

 **AIOS**
The result of the addition 90 + 4 is 94.

@ an agent to talk to AIOS...

AIOS could make errors. Consider checking important information.



- + New Chat
- Current
- Sample

AIOS v1 Beta

You

+4

is 94.

- example/music_composer
- example/fitness_trainer
- example/meme_creator
- example/plant_care_assistant
- example/cocktail_mixologist
- example/cook_therapist
- example/MathAgent
- example/interior_decorator
- example/story_teller
- example/logo_creator

@

Welcome to the Agent REPL.
Please select an agent by pressing tab.
To exit, press Ctrl+C.



Academic Agent

1/1

>

|




Favorites

 AirDrop

 Recents

 Applicati...

 Desktop

 Documents

 Downloads

iCloud

 iCloud Dri...

 Shared

Locations

 iPhone 

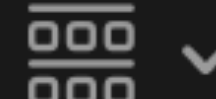
 Network

Tags

 Red



Applications



AltServer.app



Anki.app



App Store.app



ArmGNUToolchai
n



Automator.app



Bluebook.app



Books.app



Calculator.app



Calendar.app



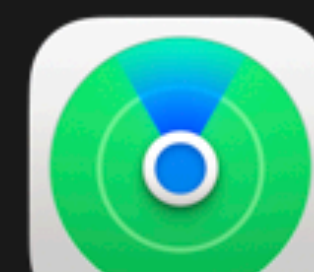
Chess.app

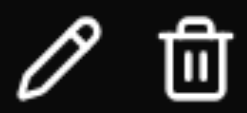


Clock.app



Contacts.app





You

example/music_composer

example/fitness_trainer

example/meme_creator

example/plant_care_assistant

example/cocktail_mixologist

example/cook_therapist

example/MathAgent

example/interior_decorator

example/story_teller

example/logo_creator

@

+4

is 94.

human --> AIOS.exe --> 👍

AIOS is not finished.

history lesson



phase 1

OpenAGI: When LLM Meets Domain Experts

Yingqiang Ge
Rutgers University

Wenyue Hua
Rutgers University

Kai Mei
Rutgers University

Jianchao Ji
Rutgers University

Juntao Tan
Rutgers University

Shuyuan Xu
Rutgers University

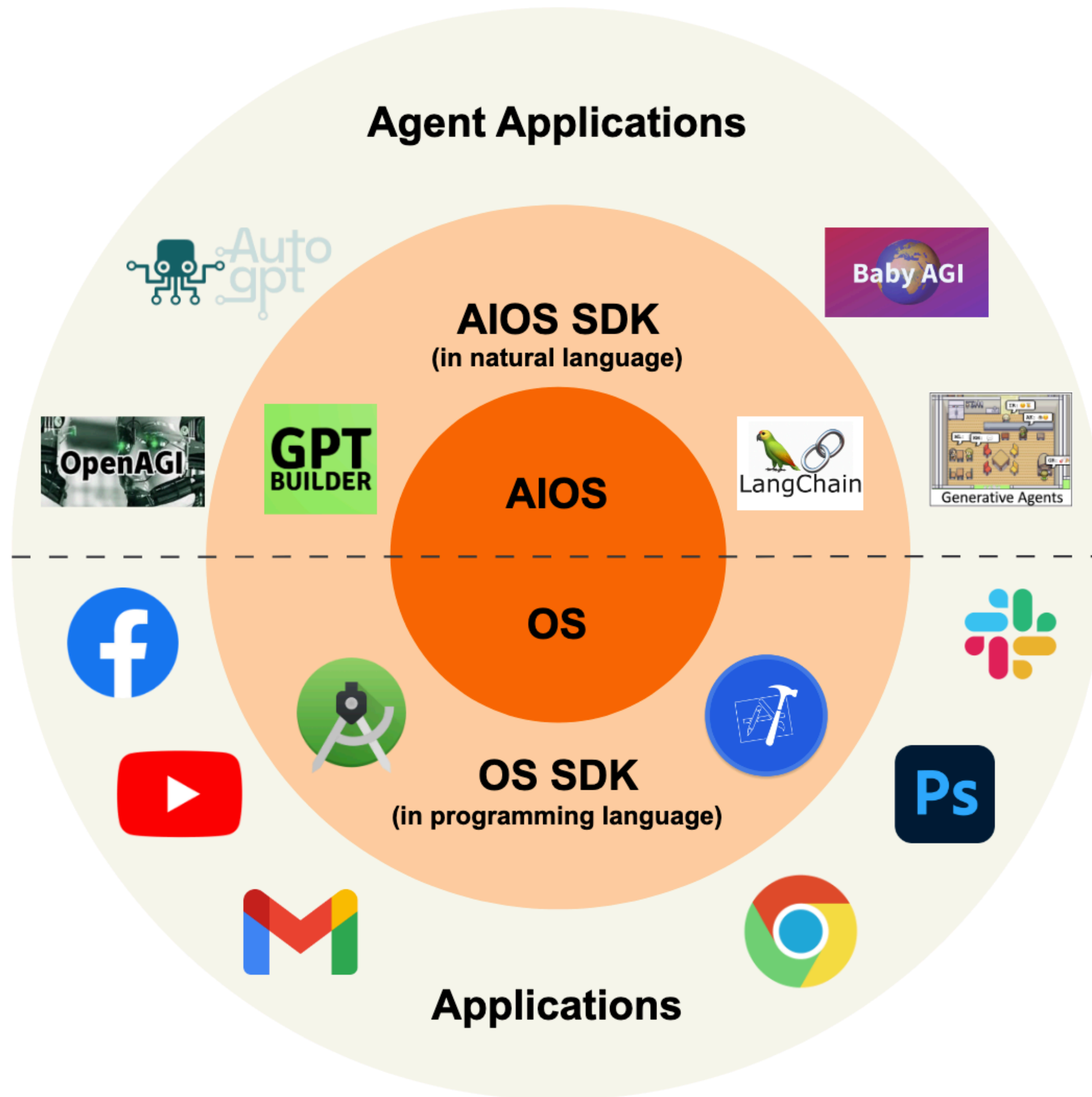
Zelong Li
Rutgers University

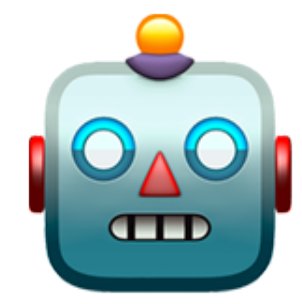
Yongfeng Zhang*
Rutgers University

Abstract

Human Intelligence (HI) excels at combining basic skills to solve complex tasks. This capability is vital for Artificial Intelligence (AI) and should be embedded in comprehensive AI Agents, enabling them to harness expert models for complex

**LLM as OS, Agents as Apps:
Envisioning AIOS,
Agents and the AIOS-Agent Ecosystem**





Optimize

AIOS: LLM Agent Operating System

Kai Mei
Rutgers University

Zelong Li
Rutgers University

Shuyuan Xu
Rutgers University

Ruosong Ye
Rutgers University

Yingqiang Ge
Rutgers University

Yongfeng Zhang
Rutgers University

Abstract

The integration and deployment of large language model (LLM)-based intelligent agents have been fraught with challenges that compromise their efficiency and efficacy. Among these issues are sub-optimal scheduling and resource allocation



The CoRE Language

Step 1:::Process:::identify the input data type based on the objective.:::next:::step 2

Step 2:::Process:::identify the output data type based on the objective.:::next:::Step 3

Step 3:::Process:::Select models in provided models list to generate a to-do list.:::next:::step 4

Step 4:::decision:::Check whether every models in the to-do list is in the provided models.:::Yes:::Step 5:::No:::Step 3

Step 5:::decision:::Check whether the previous model output data type is the input data type of the next model.:::Yes:::Step

6:::No:::Step 3

Step 6:::terminal:::Output the to-do list solely with model name.:::

Figure 1: In our CoRE system we design the CoRE language to unify natural language programming

From Commands to Prompts: LLM-based Semantic File System for AIOS

Zeru Shi^{♣,*}, Kai Mei^{♠,*}, Mingyu Jin[♠], Yongye Su[♡], Chaoji Zuo[♠], Wenyue Hua[♠],
Wujiang Xu[♠], Yujie Ren[‡], Zirui Liu[§], Mengnan Du[◇], Dong Deng[♠], Yongfeng Zhang^{♠†}
♣ Dalian University of Technology ♠ Rutgers University ♡ Purdue University
◇ New Jersey Institute of Technology ‡ EPFL § University of Minnesota

Abstract

Large language models (LLMs) have demonstrated significant potential in the development of intelligent applications and systems such as LLM-based agents and agent operating systems (AIOS). However, when these applications and systems interact with the underlying file system, the file system still remains the traditional

the future

AutoFlow: Automated Workflow Generation for Large Language Model Agents

Zelong Li

Rutgers University
zelong.li@rutgers.edu

Shuyuan Xu

Rutgers University
shuyuan.xu@rutgers.edu

Kai Mei

Rutgers University
kai.mei@rutgers.edu

Wenyue Hua

Rutgers University
wenyue.hua@rutgers.edu

Balaji Rama

Independent Researcher
balajirw10@gmail.com

Om Raheja

Independent Researcher
omr@rslp.org

Hao Wang

Rutgers University
hw488@cs.rutgers.edu

He Zhu

Rutgers University
hz375@cs.rutgers.edu

Yongfeng Zhang

Rutgers University
yongfeng.zhang@rutgers.edu

Abstract

Recent advancements in Large Language Models (LLMs) have shown significant progress in understanding complex natural language. One important application of LLM is LLM-based AI Agent, which leverages the ability of LLM as well as external tools for complex-task solving. To make sure LLM Agents follow an effective and reliable procedure to solve the given task, manually designed workflows are



[Roadmap] AIOS Roadmap Q4 2024 #127

🔗 Open

🔄 9 of 29 tasks

evison opened this issue on May 16 · 1 comment



evison commented on May 16 · edited by agiresearch

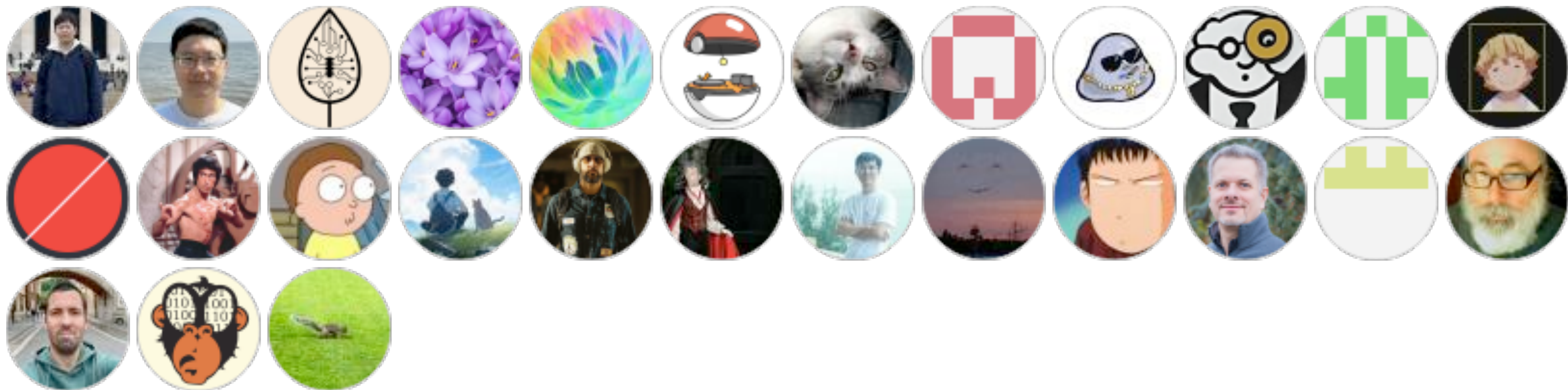
Optimize the LLM kernel

- Translate current implementation to more efficient implementation (more e
 - Multi-thread/Multi-process optimization ([@om-raheja](#))
 - Memory optimization with low-level handling
 - Hierarchical storage

Support more agent frameworks in AIOS

our ask





thank you!

contact@aios.foundation

om.raheja@rutgers.edu