Yi 200k Context Window Hackathon

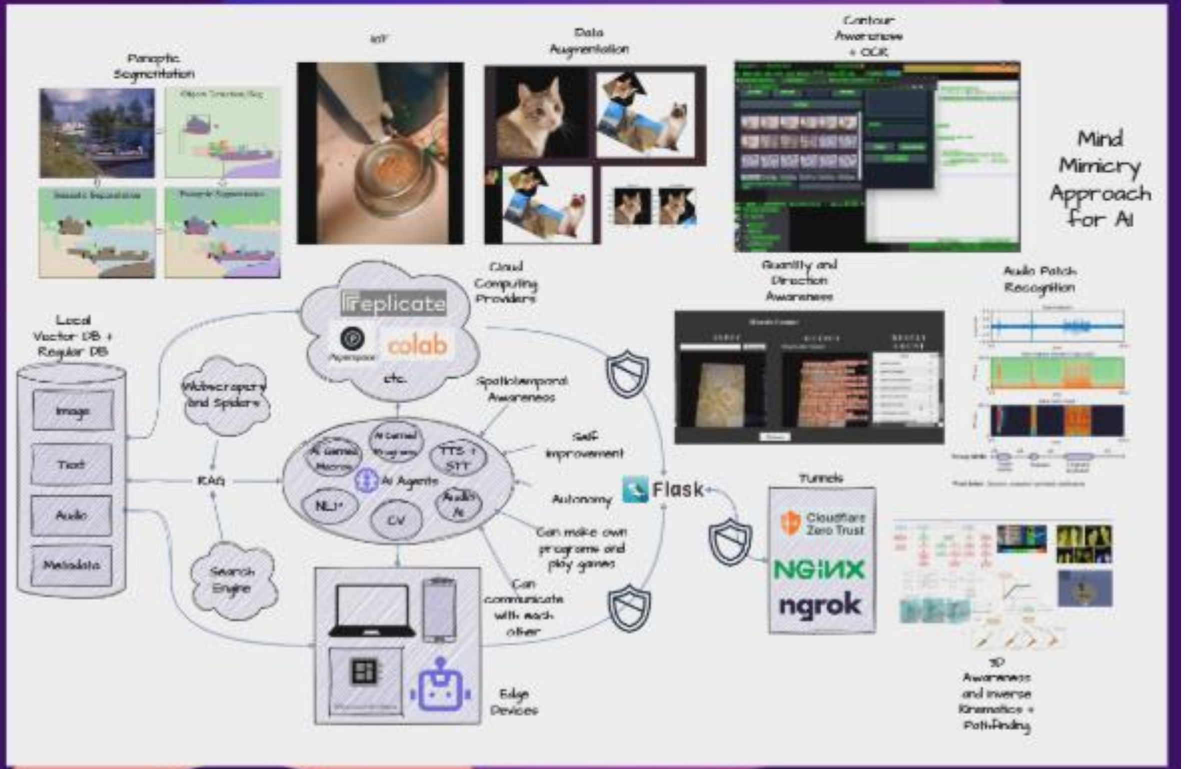
Mind Mimic

Unified AI Modules for Cloud and Edge

System Architecture

Attempts to mimic the human thought process. Uses cloud computing and edge devices. And unifies existing language models and allows autonomous agent creation.

Stacks:
- Python (Flask, Pytorch, OpenCV, OpenCL, CUDA, etc.)
- Kivy (Frontend for Mobile, supports pygame, QT, openGL)
- Cython (C Bindings for Python)
- Pyjnius (Java Bindings for Python)
- Buildozer (App Compiler)
- AI Algorithms (AI algorithms)



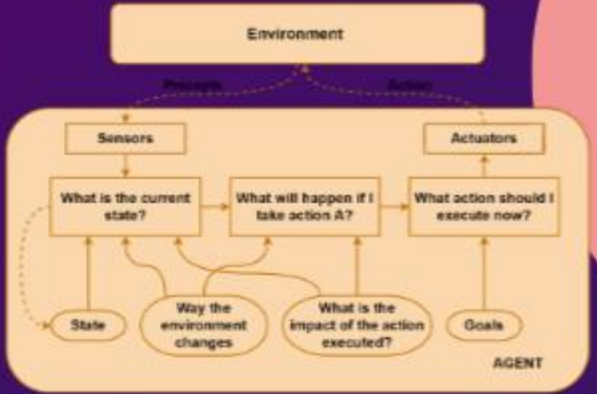
Agent Creation

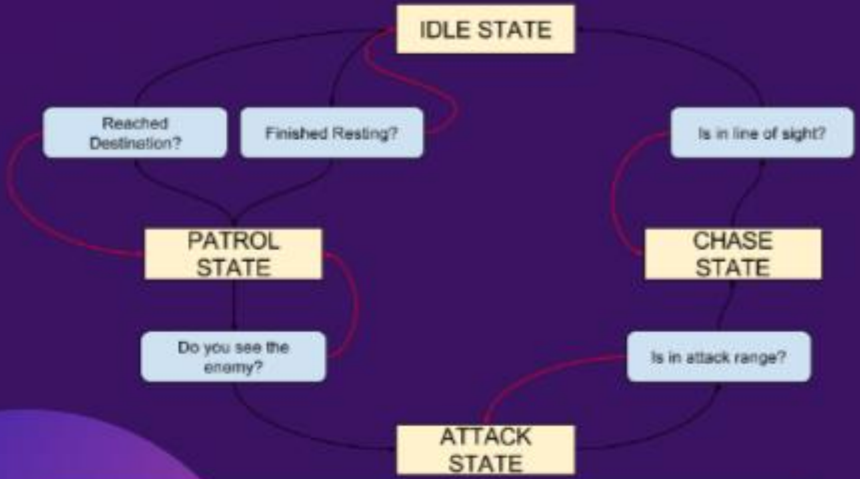
Creates agents

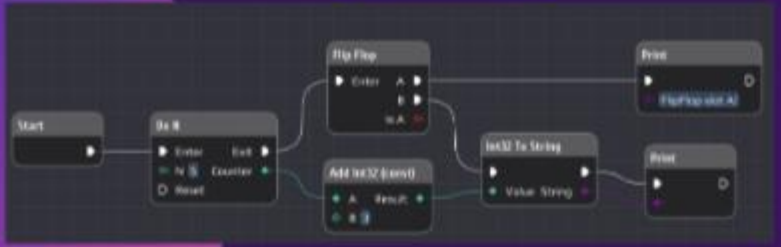
Uses a node editor or a high-level finite state machine at which the LLM and other algorithms to autonomously improve the agent until it reaches an objective.

The user should be able to create own starting finite state machine or nodes as well as a UI for the agent using an environment and some tools at which the AI ca use, combine or refine. As well as programs.

The app would have a built in interpreter.


Environment
Percepts
Action
Sensors
Actuators
What is the current state?
What will happen if I take action A?
What action should I execute now?
State
Way the environment changes
What is the impact of the action executed?
Goals
AGENT



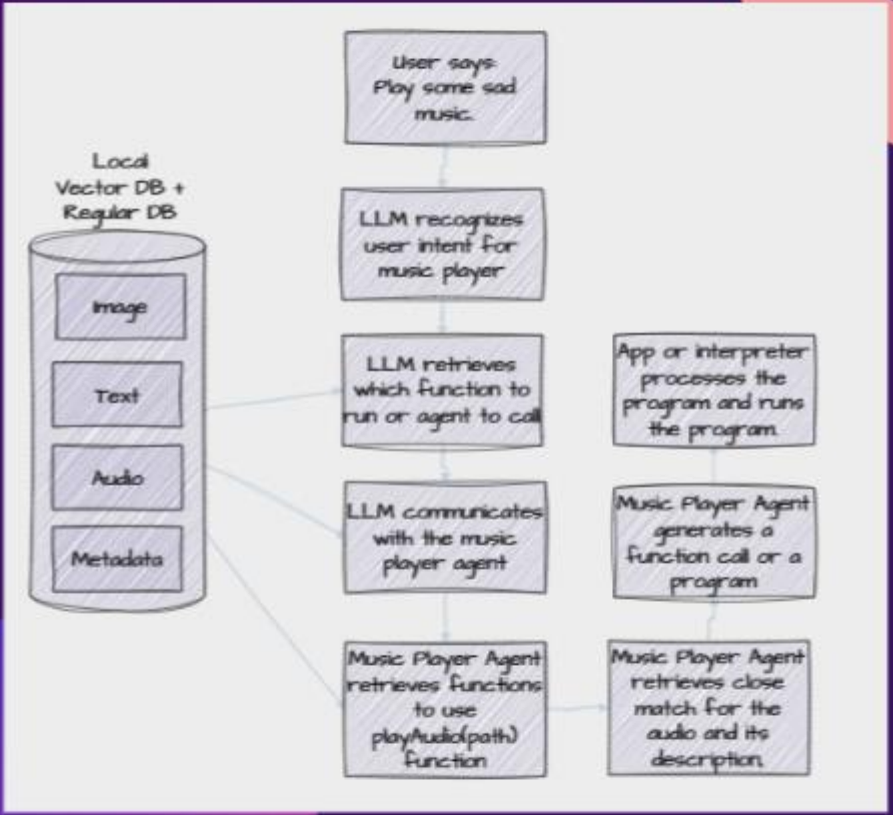


Example Agent #1

Music Player

The commanding agent, will organize the agents. By selecting the agents required to accomplish user intent.

And the music player agent will do RAG for local database for audio.


User says Play some sad music.
LLM recognizes user intent for music player
LLM retrieves which function to run or agent to call
LLM communicates with the music player agent
Music Player Agent retrieves functions to use playAudio(path) function
Music Player Agent retrieves close match for the audio and its description.
Music Player Agent generates a function call or a program
App or interpreter processes the program and runs the program.
Local Vector DB + Regular DB
Image
Text
Audio
Metadata

Example Agent #2

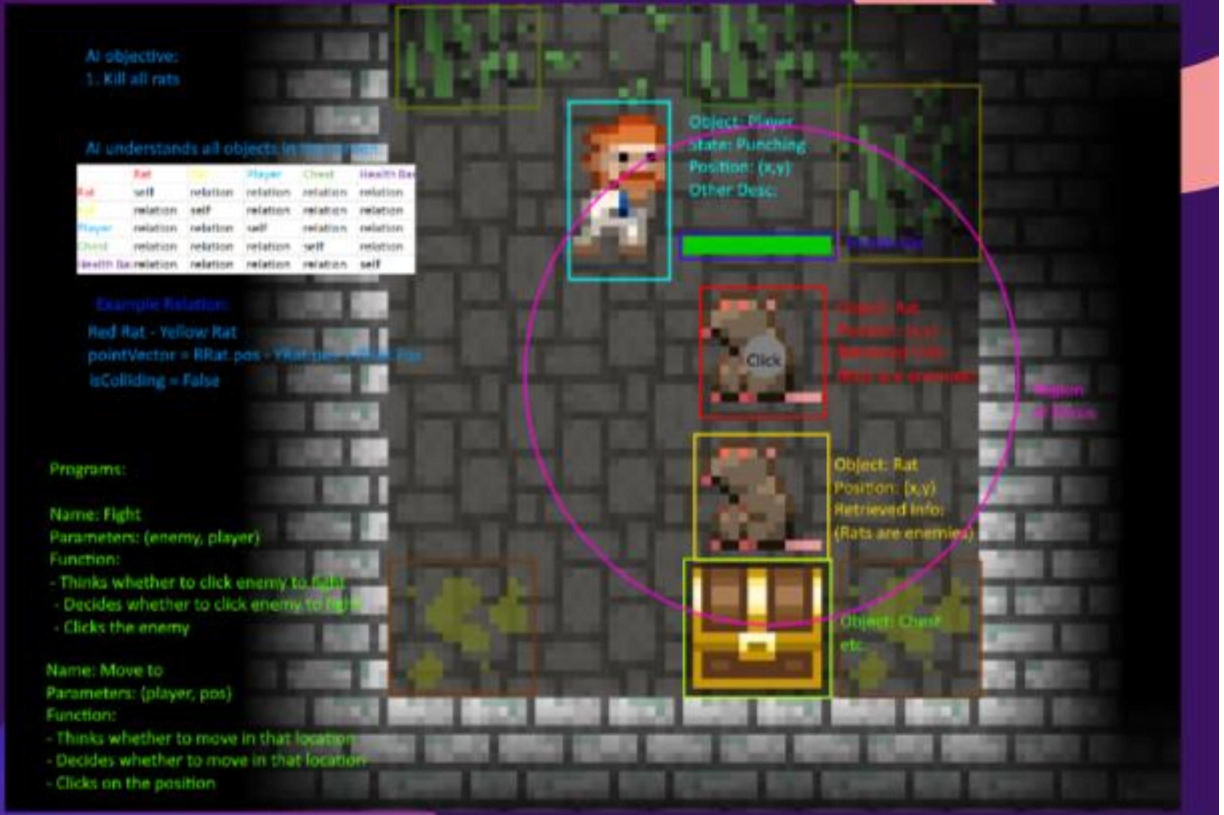
Dungeon Game Player

Ideally the LLM should be able to create its own agent to reach its goal.

It is able to sense the environment.
Think about the actions and consequences of the actions.
And finally execution.

It can utilize other functions such as panoptic segmentation, autoclicker, and retrieves relevant functions for the game.

And then runs the actions.



AI objective:
1. Kill all rats

AI understands all objects in [illegible]

	Rat	[illegible]	Player	Chest	Health Ba
Rat	self	relation	relation	relation	relation
[illegible]	relation	self	relation	relation	relation
Player	relation	relation	self	relation	relation
Chest	relation	relation	relation	self	relation
Health Ba	relation	relation	relation	relation	self

Example Relation:

Red Rat - Yellow Rat
pointVector = RRat.pos - [illegible]
isColliding = False

Programs:

Name: Fight
Parameters: (enemy, player)
Function:
- Thinks whether to click enemy to fight
- Decides whether to click enemy to fight
- Clicks the enemy

Name: Move to
Parameters: (player, pos)
Function:
- Thinks whether to move in that location
- Decides whether to move in that location
- Clicks on the position

Object: Player
State: Punching
Position: (x,y)
Other Desc:

Object: Rat
Position: (x,y)
Retrieved Info:
Rats are enemies)

Object: Rat
Position: (x,y)
Retrieved Info:
(Rats are enemies)

Object: Chest
etc.