

SuiGPT



About Eason Chen

- CMU HCII PhD
- Blockchain
- Natural Language Processing
- Education Technology



Programming



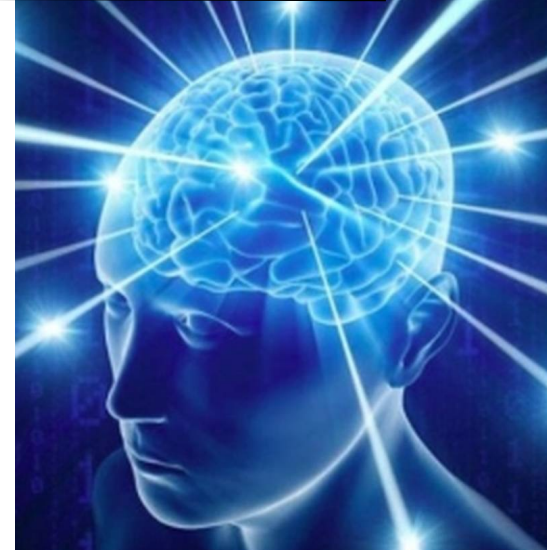
Programming with AI



Programming



Programming with AI



Programming with AI
at Move



When you ask ChatGPT to generate Sui-Move



Hallucination



Hallucination





Prompt

GPT

How to create
prompt for GPT
to generate Move?



What if you just
copy paste move
into prompt?



What you see at IDE,
powered by
sui-move-analyzer

```
coin::create_currency<MANAGED>(
  witness,
  decimals: 2,
  symbol: b"MANAGED",
  name: b"",
  description: b"",
  icon_url: option::none(),
  ctx
);
```

What AI see if you simply
copy paste the code

```
coin::create_currency<MANAGED>(
  witness,
  2,
  b"MANAGED",
  b"",
  b"",
  option::none(),
  ctx
);
```

Hey GPT, create a coin named Harrision
with 3 decimals, example code
is on the right

GPT:



```
coin::create_currency<MANAGED>(
    witness,
    2,
    b"MANAGED",
    b"",
    b"",
    option::none(),
    ctx
);
```


Create the
right prompt
is the key for SuiGPT



Finished Milestones



1. Convert Move into Annotated Move Code by Sui-Move Analyzer
2. Create Dataset: Process 68 move files with GPT to add comments and store them in a database
3. By user's input, query similar Move code and assemble them in the prompt as reference.
4. Integrated SuiGPT into GPTutor. Make all the above open-source and available by Web API.

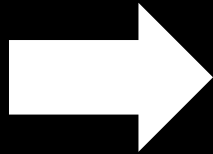
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Created a API to Annotate Move by Sui-Move Analyzer Then add comment by GPT-4

```
coin::create_currency<MANAGED>(
  witness,
  2,
  b"MANAGED",
  b"",
  b"",
  option::none(),
  ctx
);
```



```
// Create a coin symbol MANAGED
coin::create_currency<MANAGED>(
  witness,
  decimals: 2,
  symbol: b"MANAGED",
  name: b"",
  description: b"",
  icon_url: option::none(),
  ctx
);
```

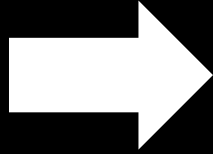


GPTutor / sui-move-annotation

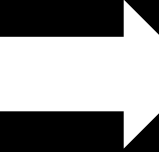


Also support module from Bucket Protocol

```
coin::create_currency<MANAGED>(
  witness,
  2,
  b"MANAGED",
  b"",
  b"",
  option::none(),
  ctx
);
```



```
// Annotated By Sui-Move Analyzer
coin::create_currency<MANAGED>(
  witness,
  decimals: 2,
  symbol: b"MANAGED",
  name: b"",
  description: b"",
  icon_url: option::none(),
  ctx
);
```

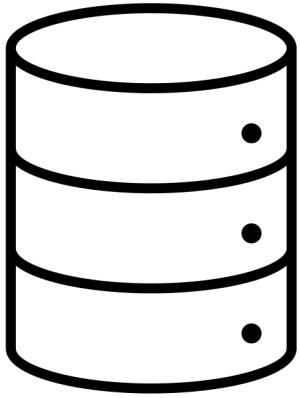


Finished Milestones

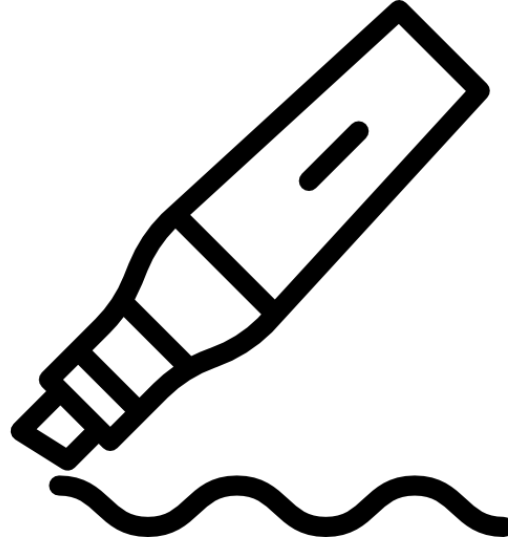


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Create Dataset:



68 Sui Move
Smart Contracts
From Sui's Example



Add type
Annotation by API

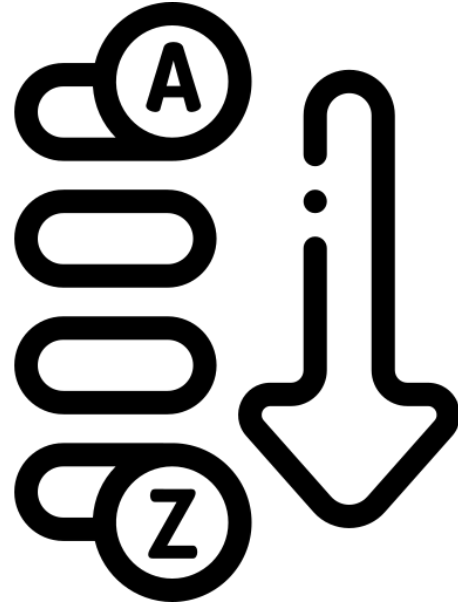


Add comments,
Generate summery
By GPT-4

Query Dataset



Stored at Elastic Search
Query by user's goal
of the smart contract



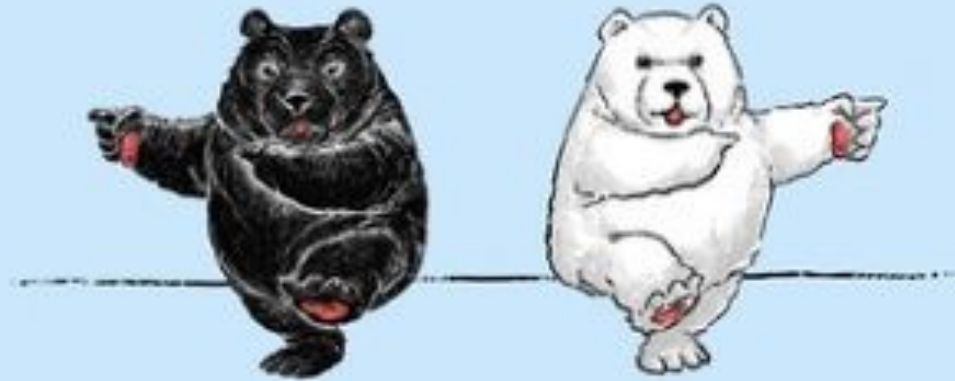
Sort by the
relevant score
By AI



Provide relevant
Move code
into prompt

FungibleCoin.move

WhitelistAirdrop.move



FungibleCoinWhitelistAirdrop.move

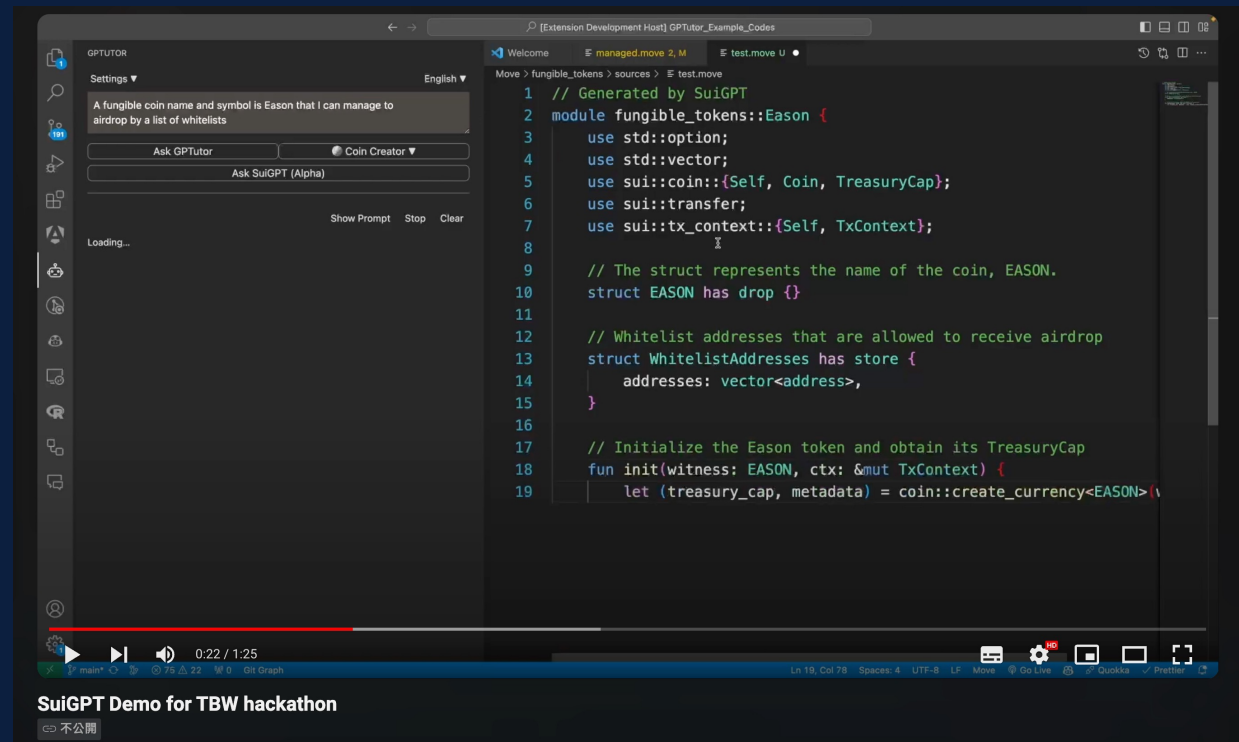
Finished Milestones



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Demo Video

<https://youtu.be/OSYIUBdKjxs?si=-XBTMRs5Y8fF0h5M>



Future Milestones



Include more Move code as data

2023
Q4

Train and Evaluate LLMs, such as GPT and CodeLLaMA, with the Move database we created.

2024
Q1

Integrated SuiGPT into a Website so users can access it at browser

2024
Q2?

Integrated SuiGPT into Sui-Move Web IDE to generate move code.

Q&A

