

GPTutor (🤖, 🤖)

A VS Code extension for
Smart Contract understanding

About Eason

- First-year PhD Student at Carnegie Mellon University
- Study Human-Computer Interaction
- Research:
 - AI in Education
 - Natural Language Processing
 - Blockchain and Smart Contract

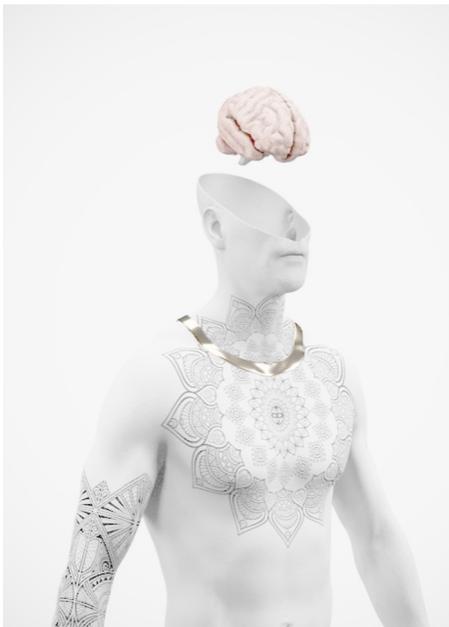




GPTutor x Bucket Protocol



Eason



Justa



Ray

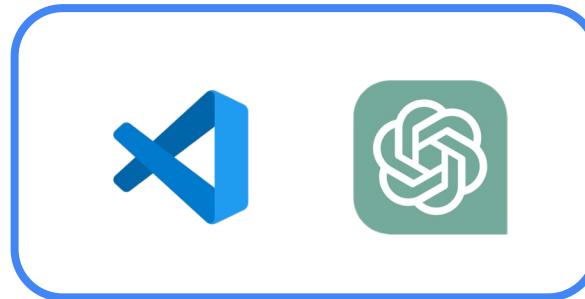
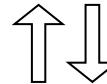


Pierce

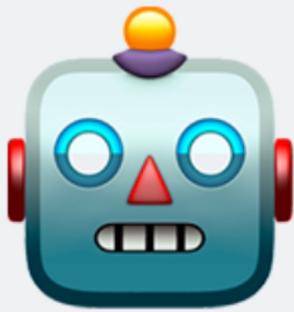
What is GPTutor?



Developer



GPTutor (🤖, 🤖)



GPTutor (🤖,🤖)



1,316 installs



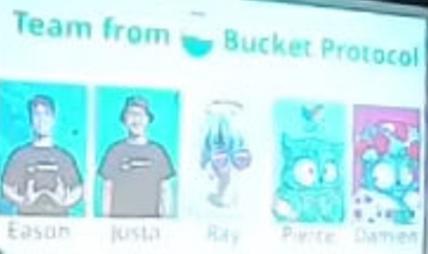
(2)

Free

A VS Code extension for AI Pair Programming and Smart Contract Development.

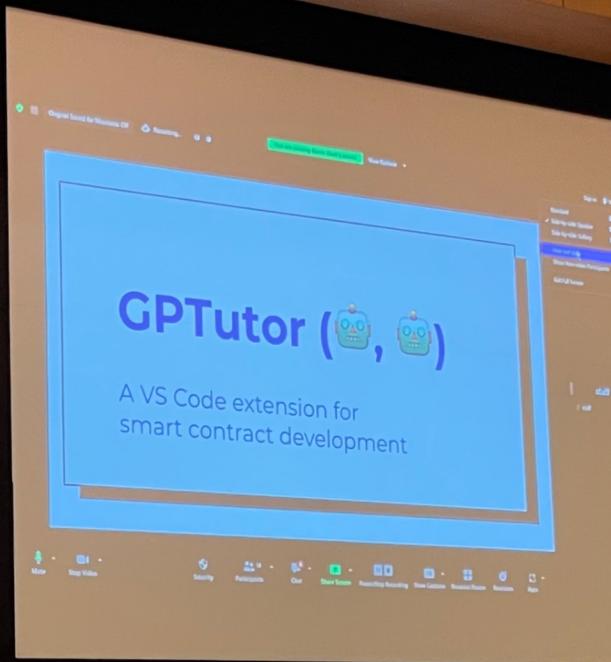
Install

Trouble Installing? ↗





AIED TOKYO 2023
24th International Conference on Artificial Intelligence in Education
The 24th International Conference on
Artificial Intelligence in Education
July 3-7, 2023 in Tokyo, Japan



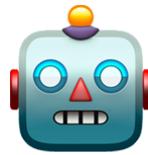




GPTutor: a ChatGPT-powered programming tool for code explanation

E Chen, R Huang, HS Chen, YH Tseng, LY Li

International Conference on Artificial Intelligence in Education, 2023



GPTutor

Support



Sui Move



GPTutor Workshop

An AI tool to boost Sui-Move Development

28 JUNE 2023 2:00 (UTC+0)



Eason Chen

Co-founder of GPTutor
AI Dev at Bucket Protocol



Justa

Tech Lead of Bucket Protocol
Advisor of GPTutor



Sam Blackshear

Co-founder & CTO of MysterLabs
Creator of Move

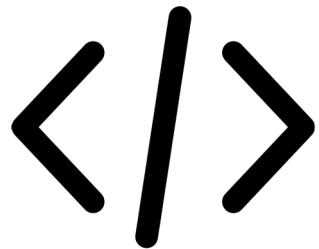
GPTutor Listed at Sui Move Developer Portal

GPTutor

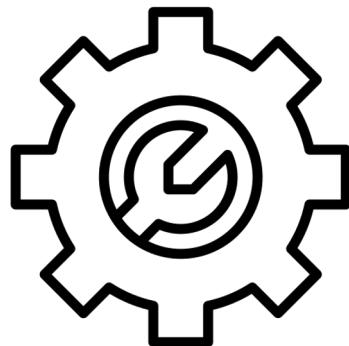
VS Code Extension supercharged by AI.
Provides devs with code explanation and
audits to more easily understand code. Build
faster on Move.

Essential

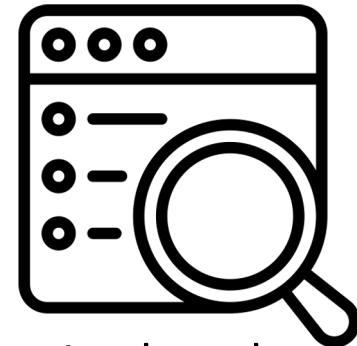
Why GPTutor?



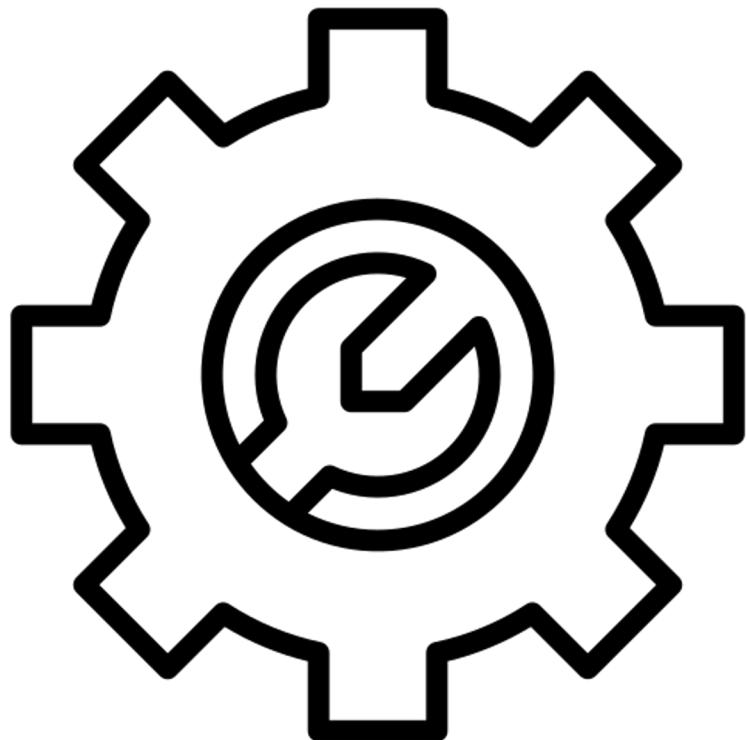
Open Source



Customizable



Look at the
Source Code



Customizable



AI Pair Programming

Programming

Programming with AI



Programming

Programming with AI

Programming with AI
at Library it don't know





幻覺

When you ask AI to handle
codes beyond its training data



Coindg with AI



Debug the code generated by AI





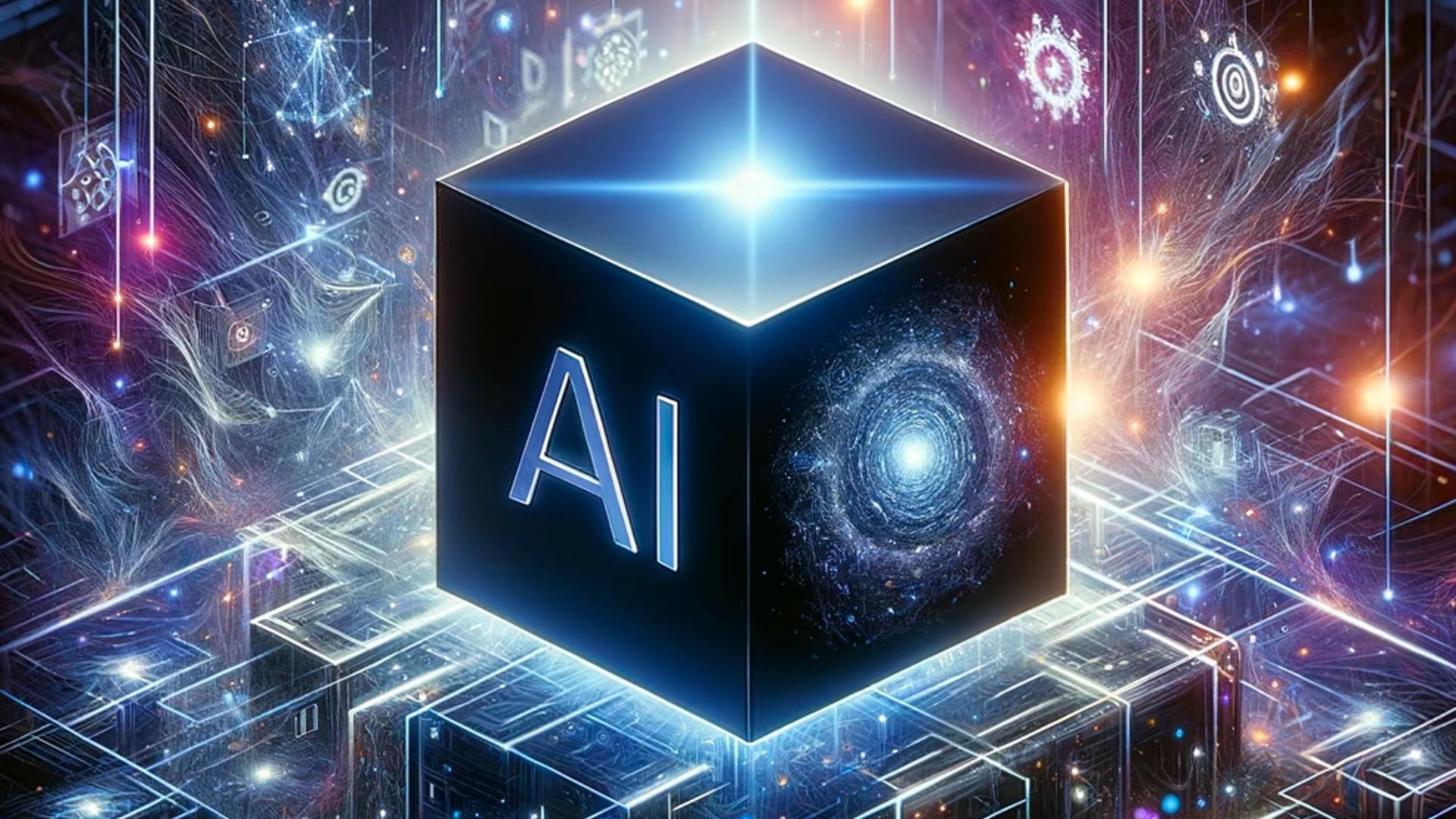
Hallucination



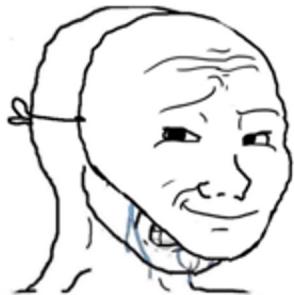
Prompt

Prompt

GPT



User



Can you learn
this library?

User



Can you learn
this library?

Copilot

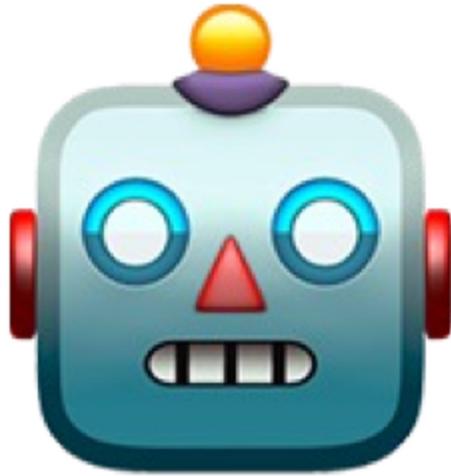


NOOOO, I CAN'T DO IT

GPTutor



Yes I can. Just
give me the prompt



Demo

Features:

Accurate preprocessing allows users to get result more quickly and efficiently

💡 Explain:

Help developers understand code content and logic



Comment:

Auto generated comments on the given code



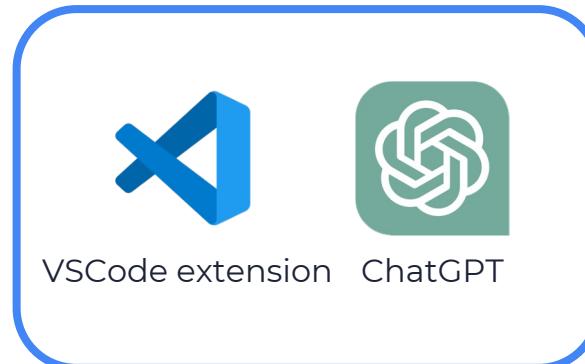
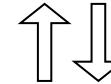
Review:

Check the given code for vulnerabilities, and give suggestions for improvement

More by your personalization



Developer



GPTutor (🤖, 🤖)

```
public fun released_amount<T>(lock: &Ves
|   lock.released_amount
}
```

[Explain](#)[Comment](#)[Audit](#)

```
public fun compute vested amount<T>(lock
· · · let total_balance = balance::value(&
· · · mul_factor(total_balance, timestamp_
)
}

```

Hover the code

```
public fun released_amount<T>(lock: &Ves  
|   lock.released_amount  
}  
Click the pop up
```

[Explain](#)[Comment](#)[Audit](#)

```
public fun compute vested amount<T>(lock  
|   let total_balance = balance::value(&  
|   mul_factor(total_balance, timestamp_
```



Answer:

Get Answer from GPTutor

Stop

The selected Move code contains a public function called `compute_vested_amount`. This function takes in two parameters, `lock` of type `&VestingLock<T>` and `timestamp_ms` of type `u64`. The function returns a value of type `u64`.

The purpose of this function is to compute the vested amount of tokens based on the passed in timestamp. Inside the function, the total balance available to be vested is calculated.



Customize Prompt

Settings ▾

English ▾

Edit Prompt

Set Model

Change Language

Change API Key

- ▶ is a public function called
- ▶ ; function takes in two
- ▶ :ingLock<T> and
- ▶ e function returns a value of

The purpose of this function is to compute the vested amount of tokens based on the passed in timestamp. Inside the function, the total balance available to be vested is calculated by adding the balance of the lock's **vault** to the lock's

```
"specificLanguage": {  
    "move": {  
        "explain": {  
            "display_name": "🧑 Explain",  
            "type": "chatgpt-prompt"  
        },  
        "prompt": [  
            {  
                "role": "system",  
                "content": "Move is an open source language for writing safe  
contracts. Its format is similar to Rust. You are a Senior  
Developer\nI will provide some ${languageId} code, and its  
job to explain the ${languageId} code I selected."  
            },  
            {  
                "role": "user",  
                "content": "Other context about the selected code is in the  
                "context": "The selected code is a Move contract. It defines a  
                struct called 'Bank' with a single field 'balance' of type u64.  
                The contract has two functions: 'deposit' which takes an amount  
                and adds it to the balance, and 'withdraw' which takes an amount  
                and subtracts it from the balance if there are enough funds.  
                The withdraw function also includes a check to ensure the balance  
                is non-negative."  
            }  
        ]  
    }  
}
```

Example:

Tailored to Sui-Move

這段程式碼定義了一個公開函式

`compute_vested_amount<T>(lock: &VestingLock<T>, timestamp_ms: u64)`

這個函式用

該段 Move 代碼描述了 `compute_vested_amount` 函式，它被用於計算在指定時間點可領取的資金總額。該函式接收一個 `VestingLock` 指向和一個毫秒級時間戳。

Le code Move sélectionné est une fonction publique nommée "compute_vested_amount". Cette fonction prend en paramètre une référence à une structure appelée "VestingLock" et un entier non signé de

당 코드는 `compute_vested_amount` 함수로서, Vesting 계약에서 vested 되는 총 금액을 계산하는 함수입니다. 이 함수는 `lock` 인자로 VestingLock 타입을 받고, `timestamp_ms` 인자로 시간(ms)을 받습니다.

このMoveコードは、VestingLock構造体とタイムスタンプを引数とする関数`compute_vested_amount`であり、以下の処理を行っています。

`lock.vault`のバランスと`lock.released_amount`

Support 100+ Languages

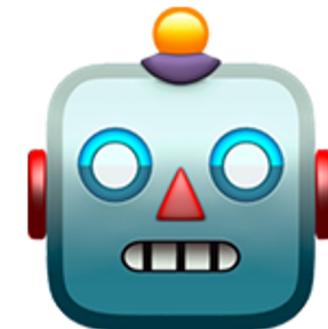
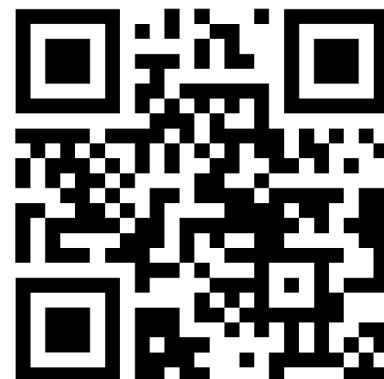
Seçilen Move kodu `compute_vested_amount<T>` fonksiyonudur. Bu fonksiyon, `VestingLock` struct'ının referansını ve bir zaman dam

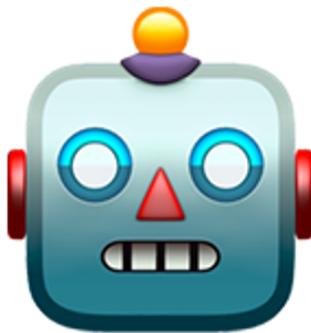
Deze Move code bevat een functie genaamd `compute_vested_amount`, die berekent welk bedrag aan tokens er op een bepaald tijdstip (uitgedrukt in milliseconden) besch

Die ausgewählte Move-Code-Funktion "compute_vested_amount" berechnet den Betrag, der zu einem bestimmten Zeitpunkt von einem Vertrag mit gespererten Mitteln freigegeben werden soll. Dabei

El código seleccionado es una función llamada `compute_vested_amount`, que toma dos argumentos: un `lock` de tipo `VestingLock` y una marca de tiempo en milisegundos llamada `timestamp_ms`. La

Try GPTutorYourself at VS Code Right Now!





Thank you

