

# LowerBound

**Customized cryptocurrency portfolio suggestion  
based on AI risk analysis**

HackSeoul Nov. 8-9

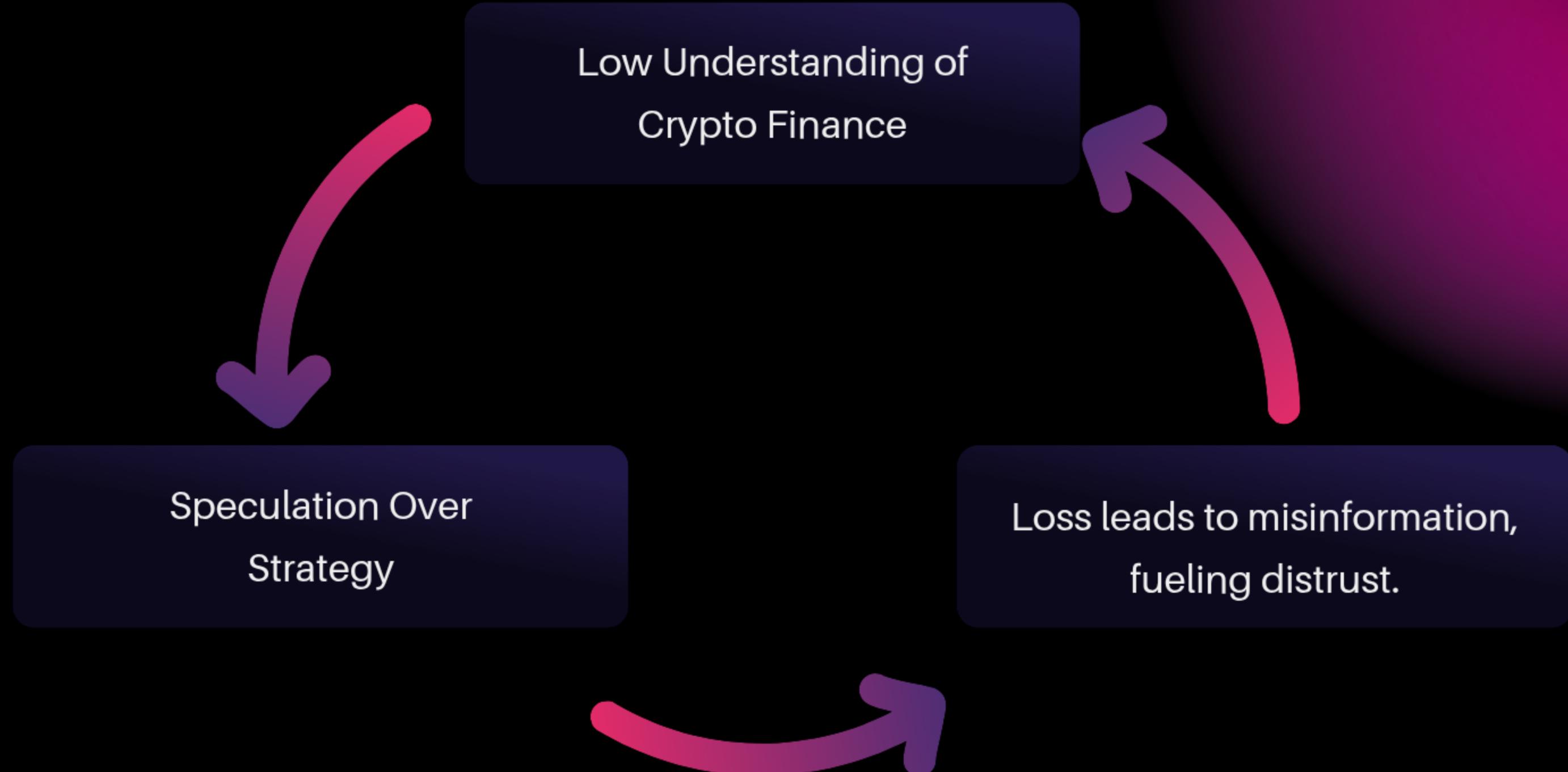
Cheolwan Park  
Hyeonseop Shin  
Yoongon Kim



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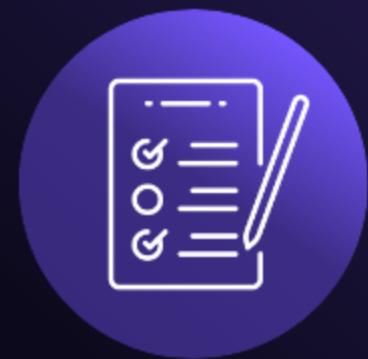
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# Problems



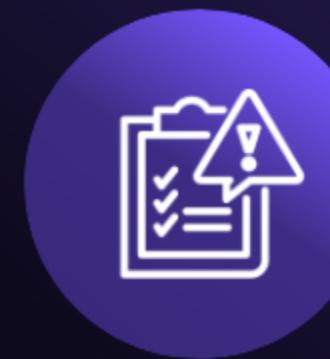
# Solution

**Customized crypto currency portfolios with AI risk Analysis**



## Invest with Knowledge

Provides reasons behind the composition of each portfolio



## Manage Risk

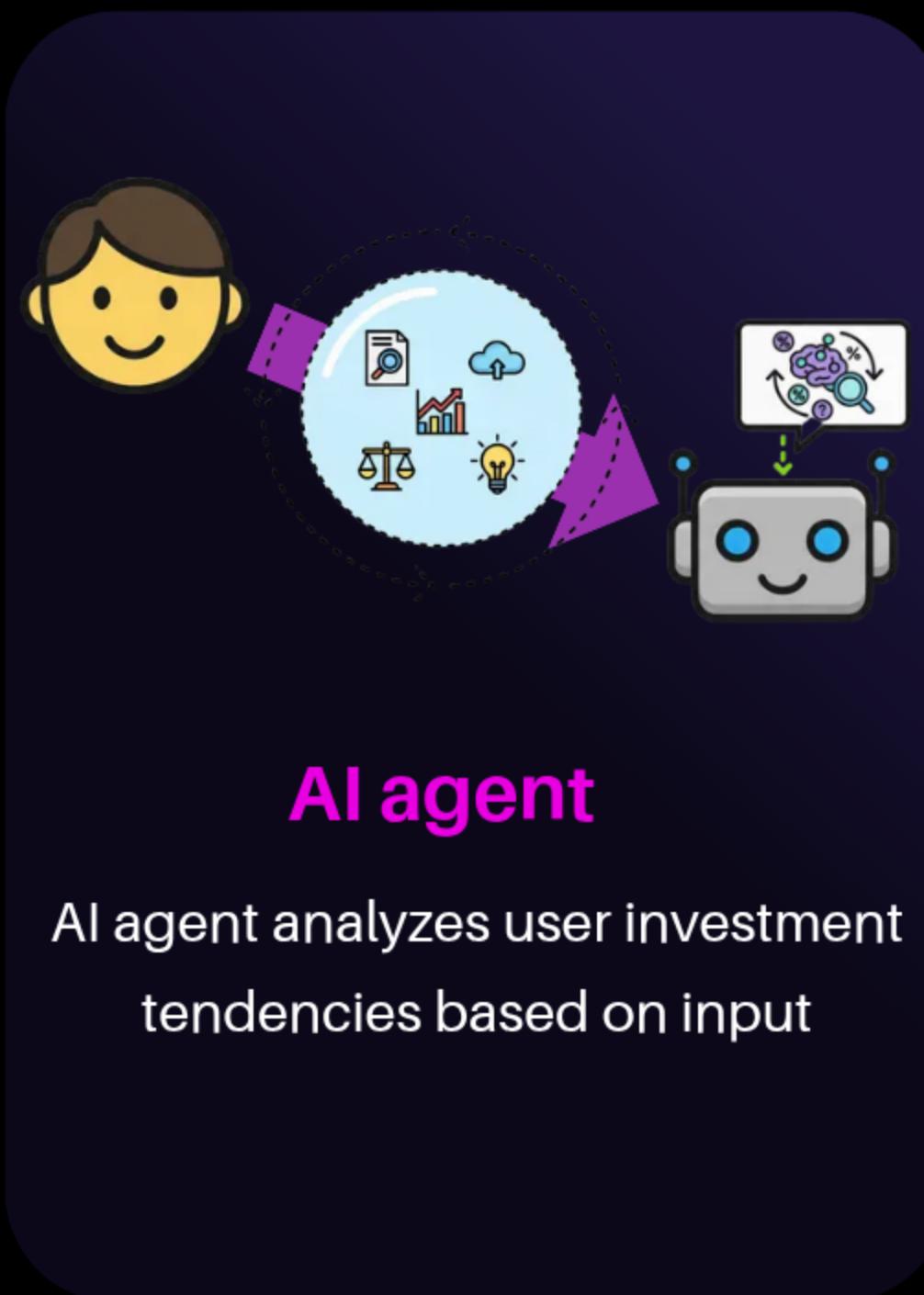
Combines spot, futures, and DeFi assets to hedge risks



## Reflect preferences

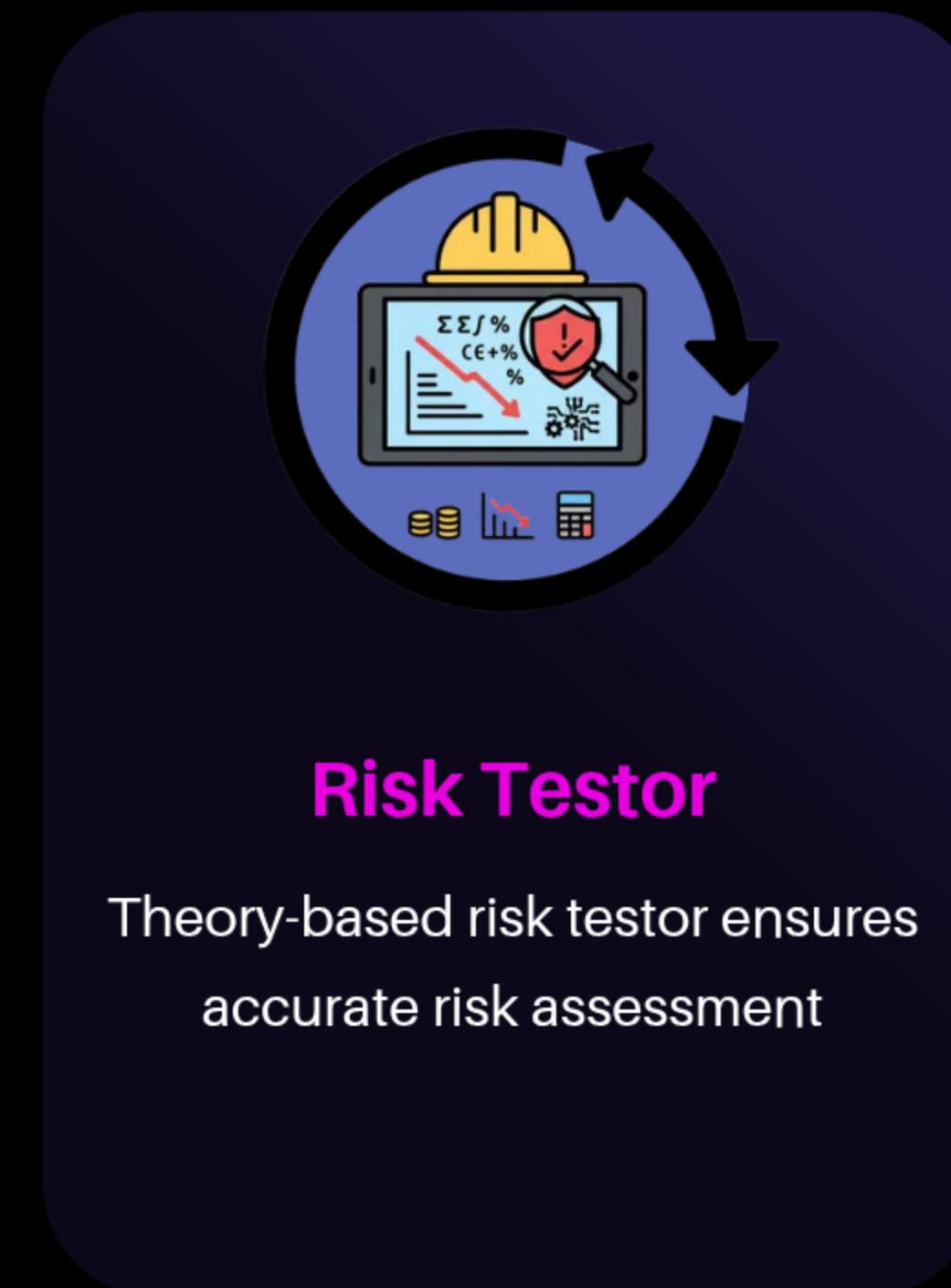
AI capture users' intentions and preferences

# Key Features



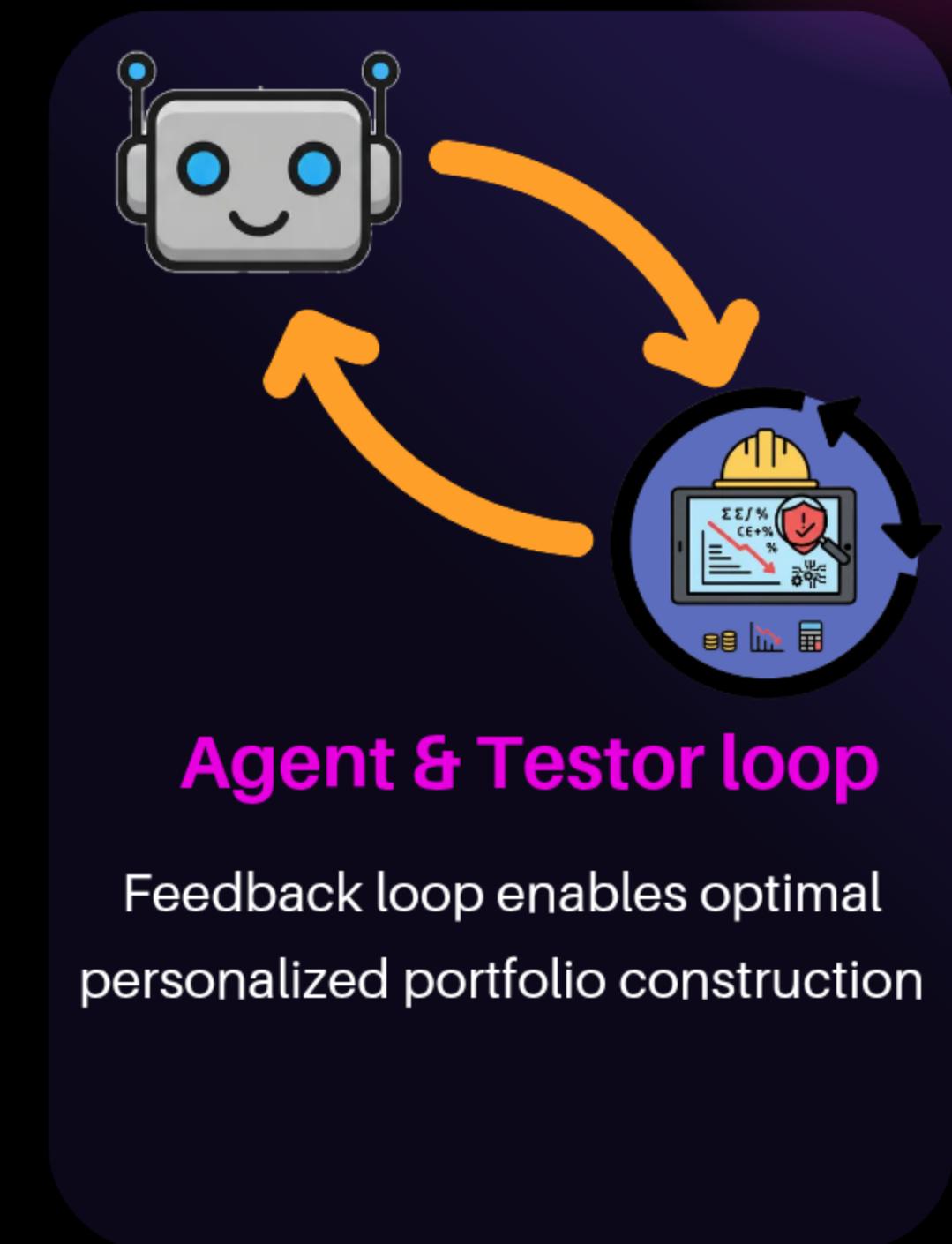
## AI agent

AI agent analyzes user investment tendencies based on input



## Risk Testor

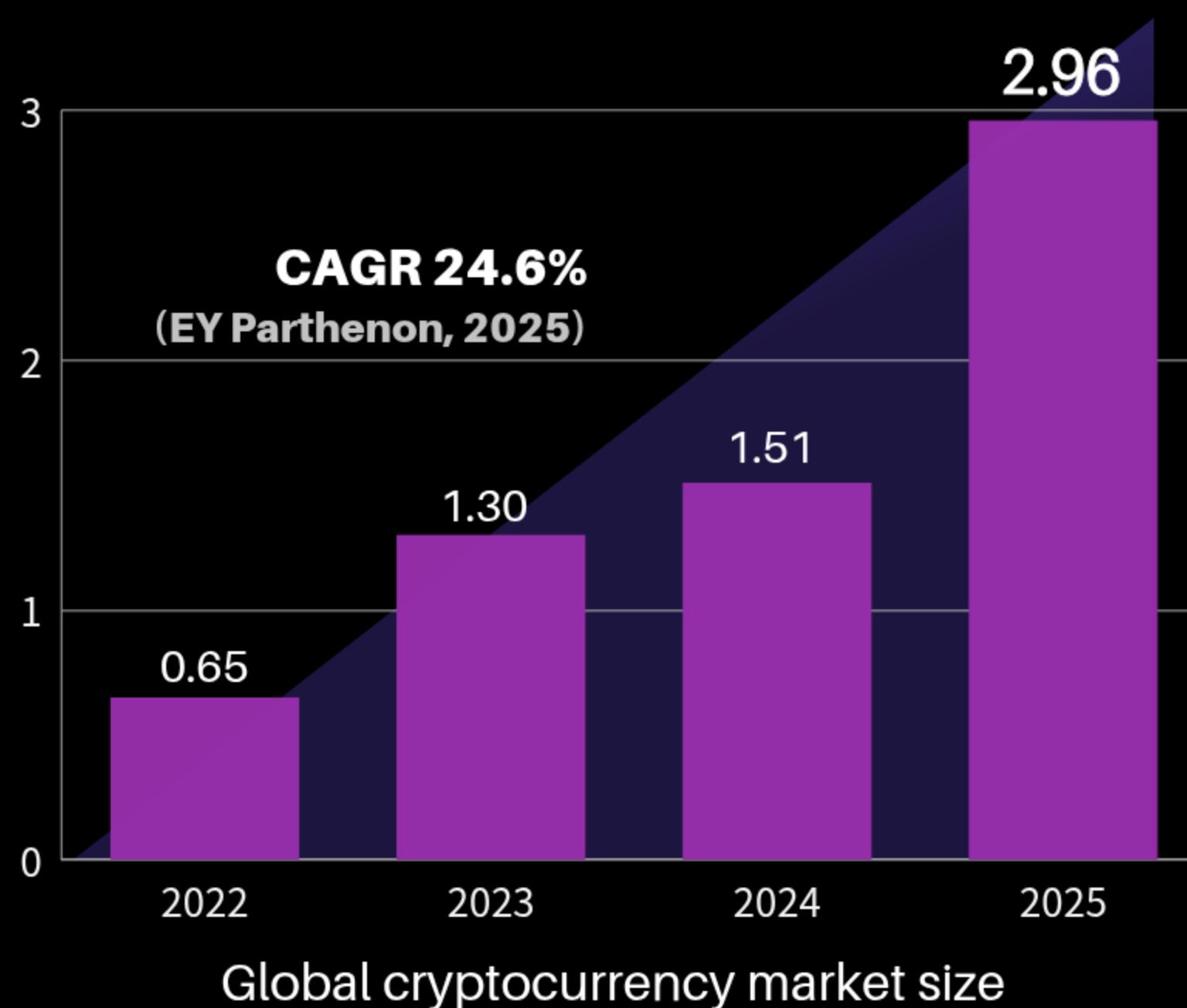
Theory-based risk testor ensures accurate risk assessment



## Agent & Testor loop

Feedback loop enables optimal personalized portfolio construction

# Market Size & Analysis



**800M** people worldwide  
are buying cryptocurrency in 2025

**40%** of non-crypto investors  
cite lack of financial literacy, fear of variance

**2%** of crypto-users have DeFi  
3.6x larger markets for CEX

# Competitors & Advantages

	Our Service	Wealthfront	Betterment	Shrimpy
non-spot products	✓	•	•	○
Theory-based risk testor	✓	○	○	•
PortFolio Explanation	✓	○	○	•
AI investor profiling	✓	•	•	•

## Competitive Advantages

AI driven user intension Analysis for automatic portfolio creation **matching investment tendencies**

Financial-engineering-based **risk tester** for higher accuracy in risk measurement

Comprehensive crypto portfolio agent considering **futures** and **DeFi** protocols

Visualization & Simulation of portfolio value based **on historical data**

# TAM/SAM/SOM



**Global Cyrypto Currency Market**  
**TAM** **\$ 2.96 Trillion** (mordorintelligence, 2025)

**Crypto Asset Management Service Market**  
**SAM** **\$ 1.70 Billion** (mordorintelligence, 2025)

**Beginner Investors**  
with low understanding of crypto & risk management  
**SOM**  
**Experienced Investors**  
expanding their portfolios into crypto currency

**258M**  
number of crypto wallet users

**24.6%**  
CAGR of crypto management market

**31.8%**  
CAGR of robo-advisor market

# BM & Marketing strategy

## Business Model



### Credit Plan

Charge users based on service usage, measured in credit units.

## Marketing Strategy



Target working professionals with strong investment motivation



Target young beginner investors (20s-30s)



Gain credibility through validation from professional fund managers.

# Team



## Cheolwan Park

CS, Hanyang University  
SWE at crypto hedge fund  
Top 16 finalist at ROKAF AI Hackathon



## Yoongon Kim

EECS, Seoul National University  
SNU VLSI Lab research intern  
Scholarship for Semiconductor Specialist



## Hyeonseop Shin

EECS, Seoul National University  
1st author of Global AI conference(NeurIPS)  
MLOps Engineer in fintech  
Certified investment manager

# Q & A

**All AI has a hallucination problem.  
How can you handle false or incorrect responses from AI?**

We use AI only for analyzing user preference and investment intent not predicting future price of assets.  
The risk of portfolio also computed by theory-based, strict-rule calculation logic.  
There's no vulnerabilities that hallucination occurs.

**Financial instruments like futures are considered very high-risk for individual investors.  
Is it safe to use them?**

We use AI only for analyzing user preference and investment intent not predicting future price of assets.  
The risk of portfolio also computed by theory-based, strict-rule calculation logic.  
There's no vulnerabilities that hallucination occurs.

# Appendix

