AI Revolutionizing NFTs

Group 3: The Ripples
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Executive Summary

Why did we choose this project?

- AI and NFTs were two dominant topics throughout this class. Although dominant, these two concepts are still in very early innings compared to their forecasted potentials.

- The simulation of human intelligence processes by machines
- The most common and accessible example of AI is ChatGPT, which currently has 100+ million users and gets about 1.5 billion visitors per month

- Tokens, built on blockchain technology that allow for the creation of one-of-a-kind verifiable digital assets
- Global NFT market size is approximately $16 bn

As FinTech continues to develop as an industry, these two concepts are disrupting financial services. Banks, wealth managers, insurance brokers, and real estate companies are all beginning to adopt these technologies. The goal of our project was to marry AI and NFTs into one consolidated application.

Core Functionality

01 **AI-Generated NFTs on Ethereum**

Enable users to create, transact, and own AI-generated NFTs securely on the Ethereum blockchain.

02 **Robust Security Measures**

Utilize industry-standard encryption and unique Transaction Hash for enhanced security.

03 **Secure Data Storage**

Safeguard transaction ledgers and digital NFT assets on the localnet Blockchain.

04 **Accessible Image Assets**

Provide easy access to image assets via IPFS-generated URIs.

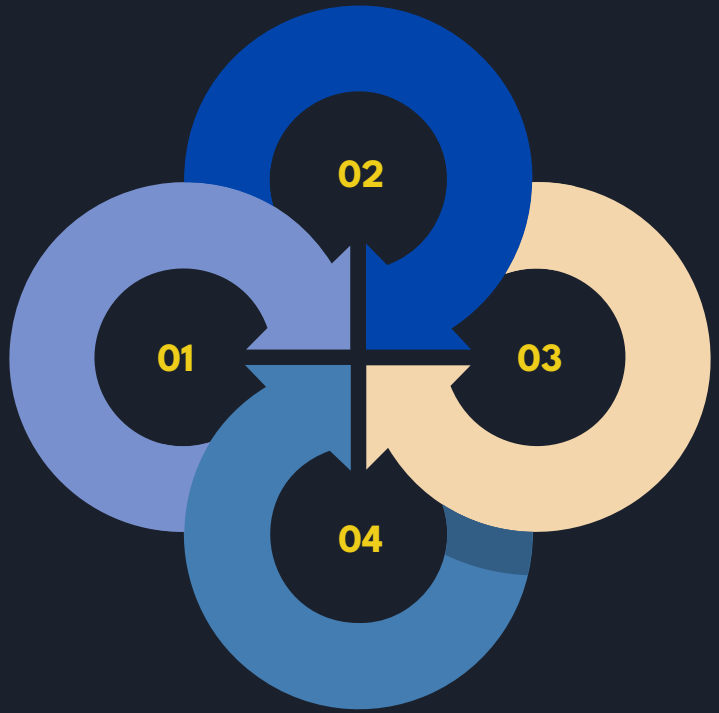
Multi-technology integration

Rich toolset to create, deploy, debug Smart Contracts:

Ganache, Metamask, InterPlanetary File System (IPFS), Remix IDE

Languages Used:

Python to implement "instructions" for application; Solidity to create and add Smart Contract functionality



Application of Previously Learned Technologies:

Streamlit, OpenZeppelin, Smart Contracts with Ganache and Remix

New Technologies Researched:

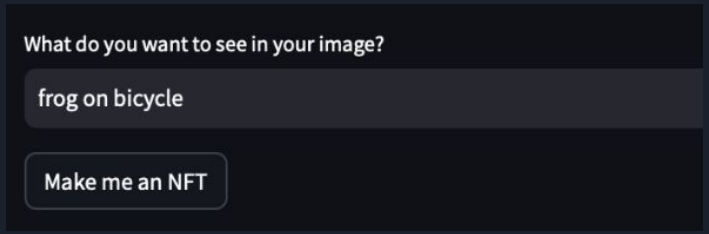
API integration using new DeepAI

Demo

Example NFT Output

Ask AI to Create Art

01

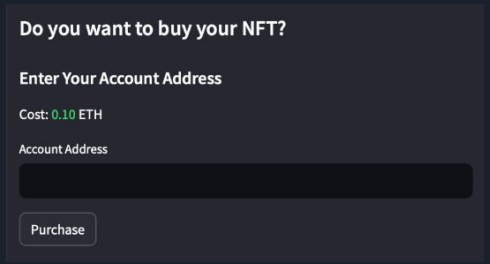


Review AI-produced Art

02

Purchase Art as NFT

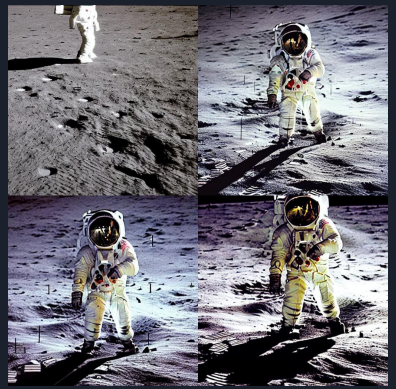
03



Review Blockchain Purchase

04

What could you generate?



Future Plans

01 **Asset Validation** to verify that accounts purchases generated NFTs are real, valid accounts with sufficient funds.

02 **Enhanced Interoperability** with other Web3.0 social platforms in the DeFi community with widely used dApps such as OpenSea.io, UniSwap, as we further build on the dynamic Ethereum network.

03 Provide a more *robust* "**Dashboard experience**" on Streamlit that provides real time data such as crypto wallet information, view collection art in gallery form.

04 Create a **Decentralized Marketplace** to view and purchase NFTs generated using our service, which can be stored on 'mainnet' Ethereum network and sold/purchased on alternative secondary markets.

Q&A

Appendix

Github Repository

DeepAI

Pinata | IPFS API & IPFS Dedicated Gateway

Metamask | Crypto Wallet for Web3

Ganache | Ethereum Blockchain Tester

Remix - Ethereum IDE