**A07 Notes – AI for Blockchain Technology**

**Smart Contract Optimization**

The smart contract needs to be optimized since it can lead to lots of people getting devalued. AI can read through the smart contract to both help people save money, and not fall for bad contracts.

**Authoring Smart Contracts**

AI can generate step by step on how to set up and make a proper smart contract based off data from plenty of other datasets.

**Fraud Detection and Security**

AI systems are able to be implemented into a blockchain to detect unusual login activity, like through a location or time/transactions can be logged and detected. This is similar to fraud detection banks normally use on personalized data to tell what’s suspicious or not.

**Data Marketplace and Monetization**

Monitors the marketplace to verify buyers, making sure they’re trusted customers. Prevents malicious buyers from blocking others to lower the price and waste the owner’s money.Also monitors trends to pick good listings and most data that can be gathered from markets. One way this can be is monitoring balance, and only offering things they can afford to avoid higher priced items getting attacked. **(Genuine Donkeys are Paid Genuine Money)**

**Supply Chain Management**

AI Systems are able to manage when contracts are fulfilled, products are delivered, and payments go through. Can also automatically manage inventory, say what is and isn’t in stock, marks when transactions went through and are confirmed, and more. Anybody that tries to bypass rules within smart contracts can be prevented since AI enforces all of these.

Identify Bottlenecks, Place Orders, Manage Orders.

**Identity Verification**

AI can verify fake profiles, such as bot or scam accounts, and store them to block transactions for genuine products.

**Predictive Analytics**

Blockchains have a lack of analytics with how distributed they are, meaning AI systems staying constantly updated can give good data on what types of crypto are safe to buy, price increases or decreases on products in the blockchain, and more.

**Energy Efficiency**

Bitcoin or Crypto mining takes many cycles, block chains are trying to automatically detect times when CPUs and GPUs are not being used as often, so bitcoins can be mined better.

**Healthcare Records/Research**

Blockchains can handle patient data for confidentiality between different hospitals. AI can detect rates patients are transferred, what type of care is needed for the transfers, or other trends to change ratings, recommendations, and even sort transfers on its own.

**Decentralized AI Governance**

There is no governing body over blockchains to manage them, meaning data and transfers are secure and hidden. AI systems trying to govern the blockchains to make sure no suspcious or illegal activity is going through the block chains. Logs keep prior history, transaction records, and other data to find specific transactions connected to crimes.