

17 Metamask is a software cryptocurrency wallet used to interact with ethereum blockchain

Blockchain is a decentralized, distributed and public digital ledger that is used to record the transaction

Cryptocurrency is a digital currency, which is an alternative form of payment created using encryption algorithms

NFT - Non-fungible means something is unique and can't be replaced

Merkle tree also known as hash tree - hierarchical tree in crypto

- double spending - same money for different questions

- Pragma is configured the version of solidity

- SPDX :- Software package data exchange

Hot wallet :- Crypto storage used  
online software to protect  
the private key

Cold wallet :- Crypto storage uses  
offline electronic to protect  
the private key

view :- Only read and no states  
will be changed

pure :- on state will be change  
and read.

Smart contract is directly controls  
the transaction  
that send &  
wallet



DAA

1) Greedy Algorithm :- is find the solution of problem in shortest time

2) Huffman coding - compress text to smaller size without information loss - time complex  $O(n \log n)$

Fibonacci <sup>recursive</sup> ~~than~~ calls itself until some exit condition is reached

$$R_n = R_{n-1} + R_{n-2} \quad S_n = S_{n-1} + 1$$

non-recursive ~~does not~~ does not itself depend on any other terms in the sequence.  $S_n = n^2$

time complexity  $T(N)$

space complexity is  $O(1)$

N-queens :- N chess queens on  $N \times N$  chessboard so that no two queen attack each other

backtracking :- method of solving the computational problem using dfs

Knapsack problem :- you need to pack a set of items with given values and sizes into a container with a maximum capacity time  $O(n \log n)$

Dynamic approach - breaking down the problem into smaller and yet smaller possible subproblems

branch & bounds - principle that the total set of feasible solutions can be partitioned into smaller subsets of solutions.



ML : —

Random forest Regression is a supervised learning algorithm that uses an ensemble learning method for regression in ML.

linear regression used to predict the value of a variable based on the value of another variable.

logistic regression is a data analysis technique that uses mathematics to find the relationships between two data factors.

Outliers are those data points that are significantly different from the rest of the dataset.

Data preprocessing: Clean & organizing the raw data into suitable for building and training machine learning models.

classifying element type group  
Binary classification  
supervised & regression task