public class Encoder

public static BitSequence Encoder(int n, int l, HashFunction[] H, BitSequence I)
n: Number of input bits
l: Size of blioom filter BitSequence
H: Hash functions of bloom filter
I: Input BitSequence

Use bloom filter to Compress the input BitSequence and append the witness.

public class Decoder

public static BitSequence Decoder(int n, int l, HashFunction[] H, BitSequence B)
n: Number of input bits
l: Size of blioom filter BitSequence
H: Hash functions of bloom filter
I: Bloom filter with witness BitSequence

Decompress the BitSequence of bloom filter with witness to original input BitSequence

public class Compress

public static BitSequence[] Compression(String f)
f: file path of input files

public static void Decompresssion(BitSequence[] encoders)
encoders: encoder BitSequence array of input files

public static HashFunction[] creatHashes(int k)
k: number of hash functions

public static void writeByte(byte[] bytes,String filePath)
bytes: byte array of decoder
filepath: decompression output file path

Main class,have compression and Decompression function. Used to compress or decompress a file or a directory.

public class VideoFrames

public static List<BitSequence> VideoCompression(FrameGrab grab)
grab: FrameGrab of a video

public static void VideoDecompression(FrameGrab grab, List<BitSequence> input)
grab: FrameGrab of a video
input : BitSeqence list of compressed frames

public static BitSequence PictureDataToBitSequence(byte[][] data)
data: data of a frame

To do pre-processing and post-processing of a video compression.

<<interface>> public interface HashFunction

abstract public int hash(int n,int value,int p)
abstract public String getHashName();
abstract public int getSeed();
public static int getPrimeNumber(int n)
public static boolean isPrime(int x)