

6.1 Compression

Notebook: How Computers Work [CM1030]

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Author: SUKHJIT MANN

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Cornell Notes

Topic:

6.1 Compression

Course: BSc Computer Science

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[CM1030]-Lecture

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Essential Question:

What are the various algorithms to compress data and how are they achieved?

Questions/Cues:

- What is a compression algorithm?
- What is Redundant Data Representation?
- What is a run?
- What is lossless and lossy compression?

Notes

- Compression algo = make it possible to reduce size of files so they can be stored more efficiently
- Redundant Data rep = meaning data reps use more bits to rep something when necessary
- Run = sequence of pixels of same colour
- Lossless Compression = compress data without losing info
- Lossy Compression = compress data by losing some info
 - With images and audio, possible to lose info almost unnoticeable to most people
 - Can achieve much better compression even when data loss is not much
 - By losing info, it makes image rep more redundant and easier to compress

Summary

In this week, we learned about the general data compression algorithms lossless and lossy and how most algorithms in regards to images and video perform redundant data representation to represent something with more bits when necessary.

