Highly Parallel Decompression using a GPU

- (De)compression is everywhere
- It is expensive
- Can we do it better? (using current formats)
Compression is the practice of assigning common data to small strings, and uncommon data to large strings.

DEFLATE mainly uses Huffman augmented by LZ77.

We just need to interpret this data.

Very serial.

DEFLATE is used everywhere, but makes parallel decompression really hard.
What I Must Do

- Explore current parallel decompression strategies (especially for Huffman/DEFLATE)
- Explore novel methods for doing so
- Discover the viability of running parallel decompression algorithms on inherently serial data
- Extrapolate viability on potential future hardware
- If possible, produce a fast implementation