# DATA STRUCTURES FOR IMAGE ANALYSIS AND COMPRESSION

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# Team Presentation


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https://github.com/vlz0/ST0245-002

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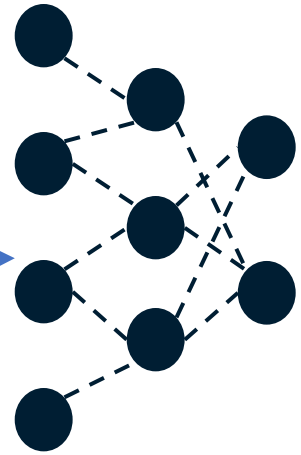
# Training Process

Sick-Cattle Images

Healthy-Cattle Images

Convolutional Neural Network

Classification Algorithm



Classification Model

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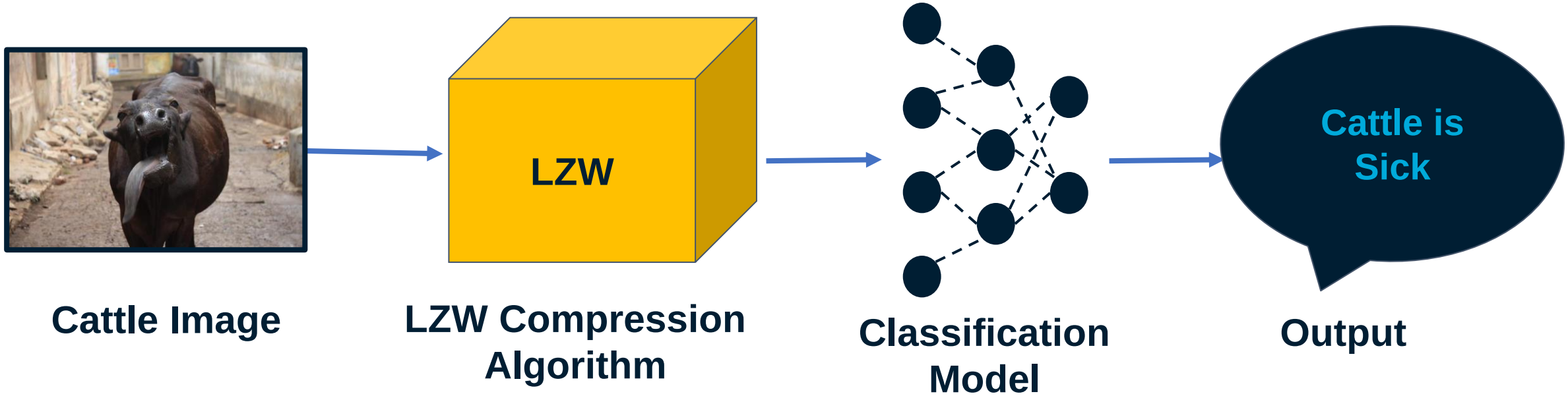
# Testing Process



# Compression Algorithm Design

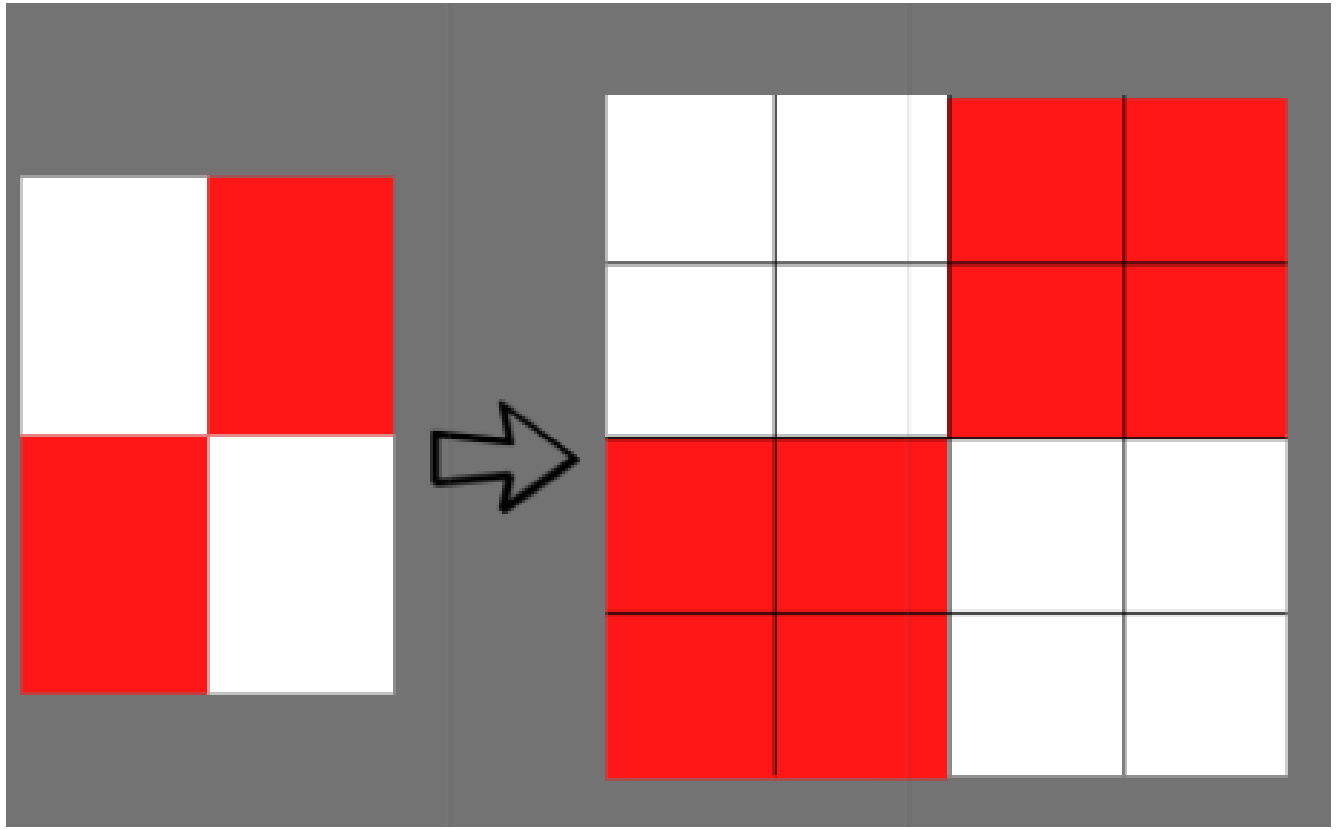


Image compression algorithm for animal-health automatic classification, using Integer Scalling

# Compression Algorithm Design

| | Uncompressed Output | Dictionary | Buffer | Compressed Input |
|---|---|---|---|---|
| a) | 0 | | | 010236 |
| b) | 01 | 2(0,1) | 0 | 10236 |
| c) | 010 | 3(1,0) | 1 | 0236 |
| d) | 01001 | 4(0,0) | 0 | 236 |
| e) | 0100110 | 5(0,1,1) | 2 | 36 |
| f) | 0100110101 | 6(1,0,1) | 3 | 6 |

When first seeing this graph, we can see just a number table, but in reality we have a visual representation of how the LZ77 lossless compression algorithm works, creating the dictionary, and saving the data up in strings

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# THANKS!

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