IMAGE COMPRESSION ALGORITHMS FOR PROCESS OPTIMIZATION IN LIVESTOCK FARMING PRECISION

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Team Presentation

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https://github.com/StefannyEscobar/FarmingProject.git

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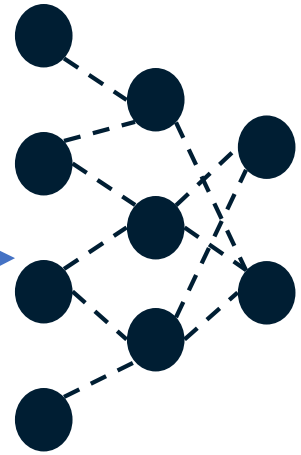
Training Process

Sick-Cattle Images

Healthy-Cattle Images

Convolutional Neural Network

Classification Algorithm



Classification Model

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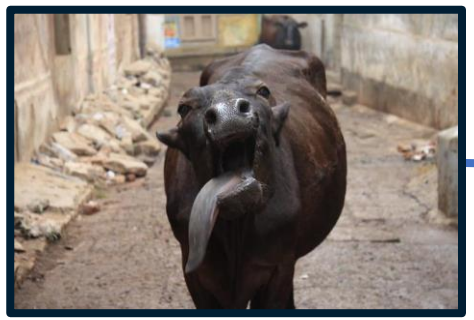
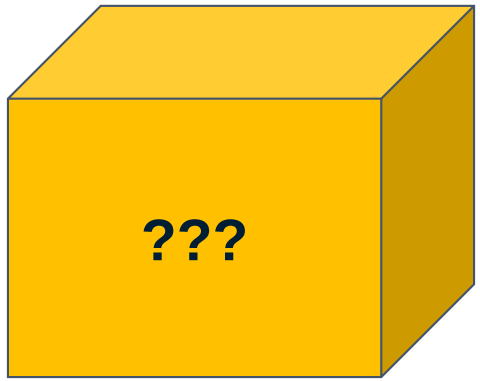
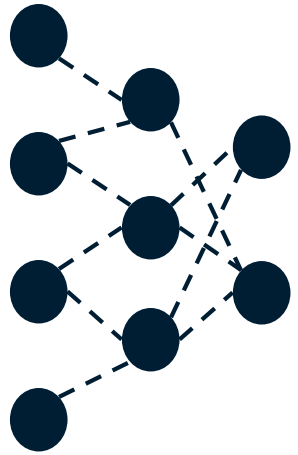
Testing Process



Cattle Image



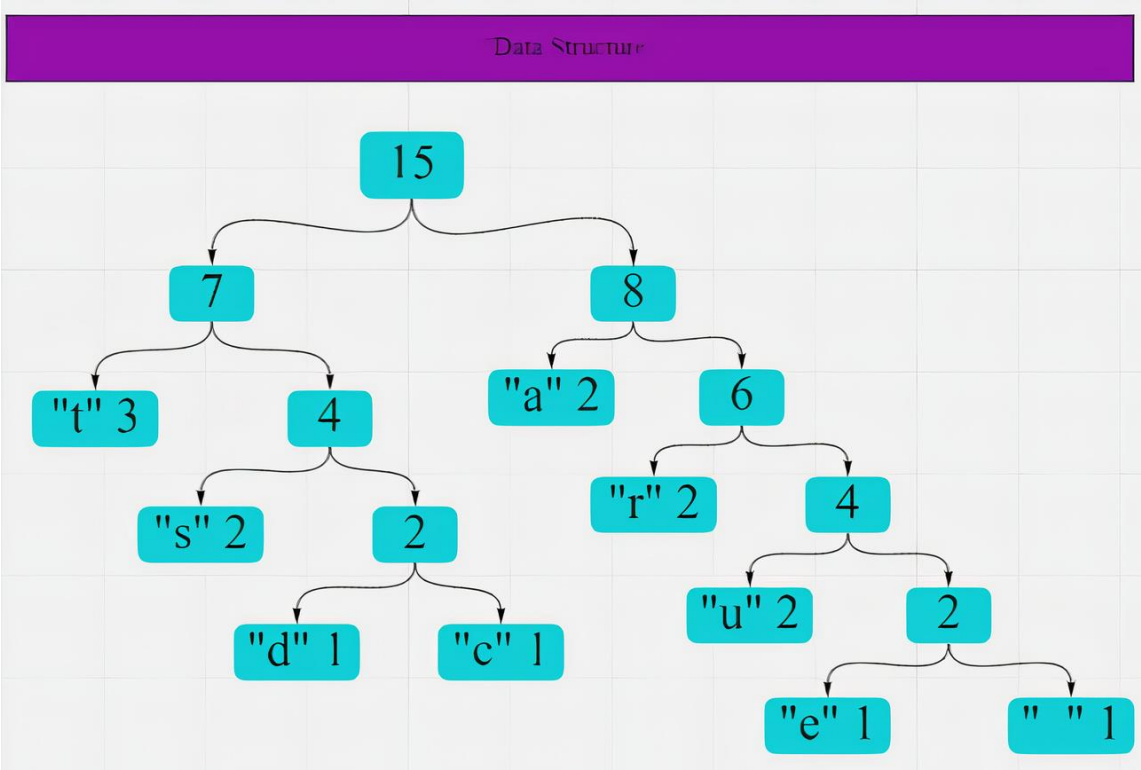
Huffman coding



Classification Model

Output

Compression Algorithm Design: Huffman Coding



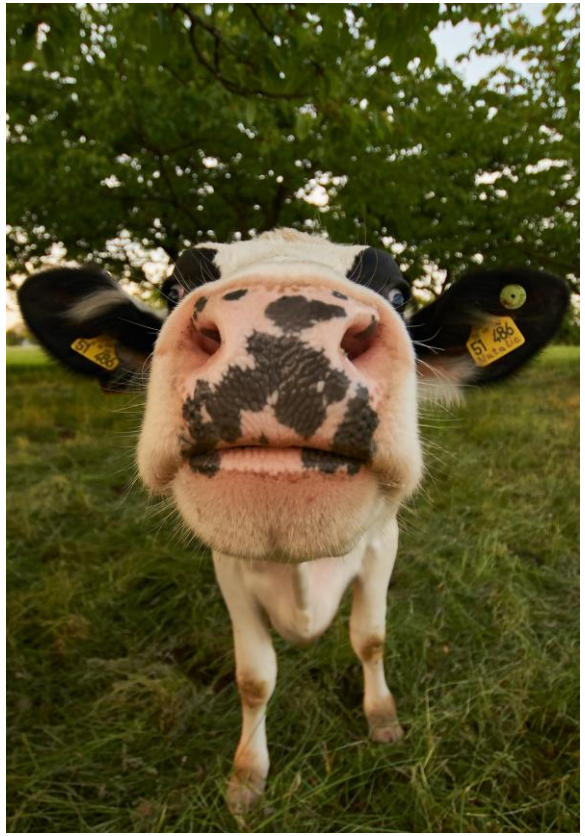


Photo by Wolfgang Hasselmann on Unsplash

The binary tree is a data structure which is composed of root, branch and leaf, in which each node can have one left and one right child.

Compression Algorithm Design: Huffman Coding

Huffman Tree from the string “Data Structure”

Character	d	a	t	s	r
Frequency	1	2	3	2	2

Character	u	c	e	" "	Total
Frequency	2	1	1	1	15

Huffman coding is implemented by constructing a binary tree of nodes from a list of nodes, whose size depends on the number of symbols n. The nodes contain two fields, the symbol and the weight.

Photo by Doruk Yemenici on Unsplash

Thanks!

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