CLUSTERING & CLASSIFYING IMAGES

Vehicles and captcha

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Objective: Explore the effectiveness of computer vision algorithms in classifying vehicles based on visual features.

Methods:

- Utilized three computer vision algorithms: SqueezeNet, Inception v3, and Deeploc.

- Applied clustering techniques to categorize vehicles based on their types.

- Employed confusion matrices to evaluate the algorithms' classification accuracy.

Findings:

- SqueezeNet: Achieved high accuracy in classifying vehicles, with minimal misclassifications.

- Inception v3: Demonstrated overall effectiveness, but with a few misclassifications.

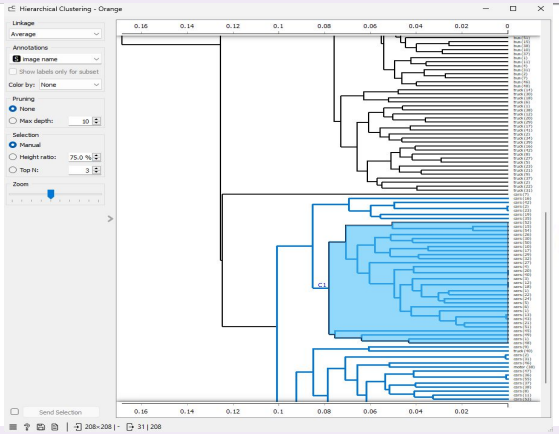
- Deeploc: Resulted in a significant number of misclassifications, particularly due to reliance on color clustering.

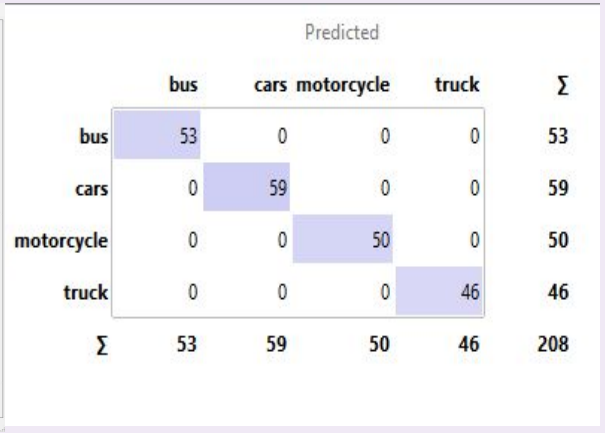
Conclusion:

- Computer vision algorithms show promise in accurately classifying vehicles based on visual features.

- Need for more robust CAPTCHA mechanisms to guard against bot attacks in digital environments.

- Ongoing refinement and development of computer vision algorithms and CAPTCHA systems are essential to ensure security and integrity in online platforms.





	Predicted				
	bus	cars	motorcycle	truck	Σ
bus	53	0	0	0	53
cars	0	59	0	0	59
motorcycle	0	0	50	0	50
truck	0	0	0	46	46
Σ	53	59	50	46	208

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Introduction to Digital Humanities

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