Prof. R. Wattenhofer

Reompression

Image quality can significantly degrade with repeated re-compression, as each compression cycle in lossy codecs introduces additional artifacts and loss of detail. This project examines the effects of multiple compression cycles on image quality, analyzing how visual fidelity deteriorates and exploring techniques to minimize this degradation.

The project starts with analyzing the effects of recompression. The goal is to develop methods that mitigate the impact of re-compression
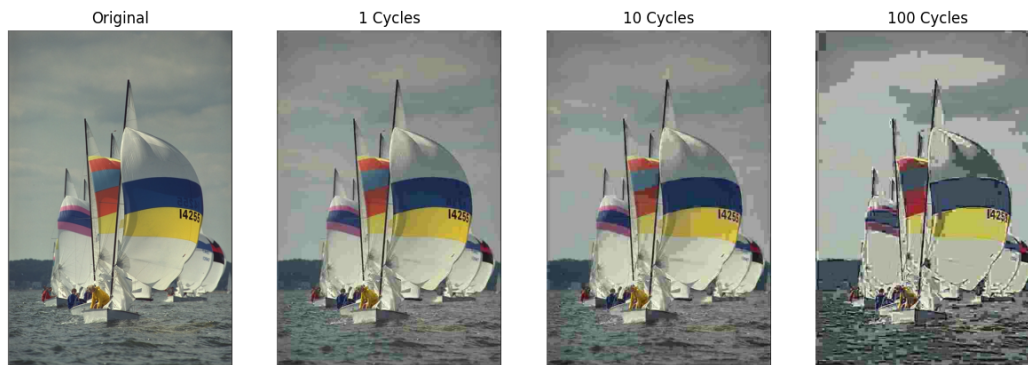

Figure 1: Compressing an image 1, 10, and 100 times with JPEG. Image quality degrades as the number cycles increases.

Requirements: Strong programming skills in languages such as Python, along with a keen interest in learned compression.

Weekly meetings will be scheduled to address questions, discuss progress, and brainstorm future ideas.

Contact

In a few short sentences, please describe your interest in this project and any relevant coding experience or background (e.g., projects or coursework).

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