

COL783 Assignment 1

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1 Color Quantization



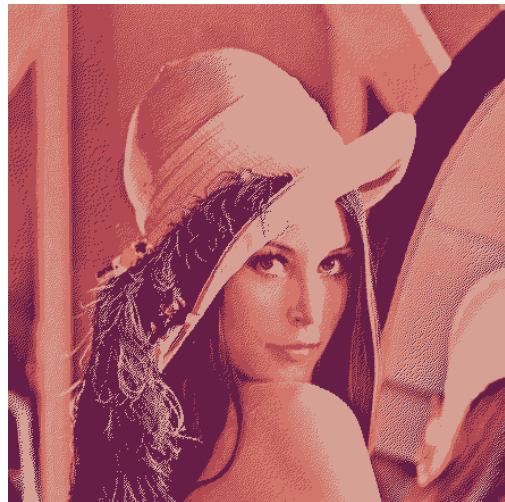
(a) Original Image



(b) Popularity Algorithm with $n = 4$



(a) Median Cut with $n = 4$



(b) Median Cut($n = 4$) with dithering



(a) Original Image



(b) Popularity Algorithm with $n = 16$



(a) Median Cut with $n = 16$



(b) Median Cut($n = 16$) with dithering

2 Edge Detection

2.1 Tanh Toning Function



(a) Edge Detection using xDoG, $n = 4$



(b) Painterly Output, $n = 4$

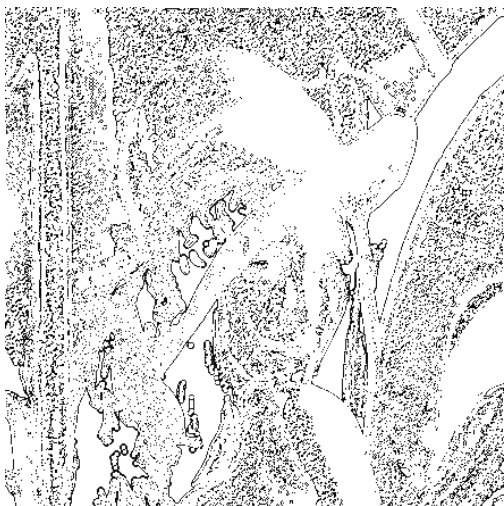


(a) Edge Detection using xDoG, $n = 16$



(b) Painterly Output, $n = 16$

2.2 Sigmoid Toning Function



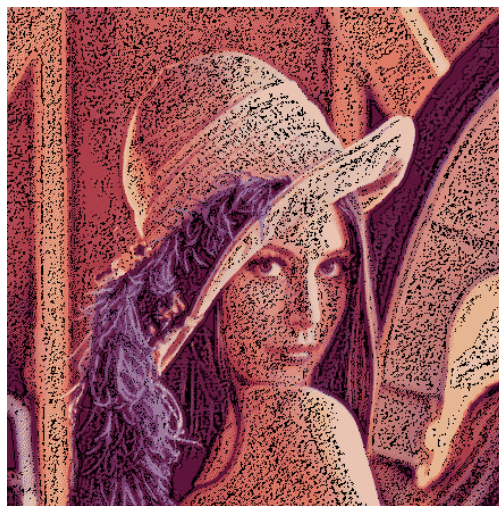
(a) Edge Detection using xDoG, $n = 4$



(b) Painterly Output, $n = 4$



(a) Edge Detection using xDoG, $n = 16$



(b) Painterly Output, $n = 16$