
```
clc;
clear;

% Loading the Image
img = imread('new_york.jpeg');
my_img = rgb2gray(img);

% Finding the Quantization Levels
num_levels = 32; % Number of levels
quantization_step = 256 / num_levels; % Step size

% Reducing size to lose unique pixel values and then resizing back to
% original size
small_img = imresize(my_img, 1/8);
quantized_img = imresize(small_img, size(my_img));

% Display Images
figure;
subplot(1, 2, 1);
imshow(my_img);
title('My Original Image');

subplot(1, 2, 2);
imshow(quantized_img, []);
title('Quantized Image with 32 Levels');
```

My Original Image



Quantized Image with 32 Levels



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