**Code**

a = imread('drag.jpg');

b = rgb2gray(a);

subplot(2,2,1);

imshow(b);

subplot(2,2,3);

histogram(b,256);

[m,n] = size(b);

c = zeros(256,1); % not uint8 but double, as uint8 can have a maximum value of 255 only

for i = 1:m

for j = 1:n

c(b(i,j)+1,1) = c(b(i,j)+1,1) + 1; % add 1 as index cannot be 0, min index=1

end

end

for i = 2:256

c(i,1) = c(i,1) + c(i-1,1);

end

for i = 1:256

c(i,1) = round(c(i,1) \* 255 / (m\*n));

end

d=b;

for i = 1:m

for j = 1:n

d(i,j) = c(b(i,j)+1,1);

end

end

subplot(2,2,2);

imshow(d);

subplot(2,2,4);

histogram(d,256);

**Output**



