Evan Huang.3871

CSE5524

HW1

1. grayIm = imread('buckeyes\_gray.bmp');

imagesc(grayIm);

axis('image');

colormap('gray');

imwrite(grayIm, 'buckeyes\_gray.jpg');

pause;

rgbIm = imread('buckeyes\_rgb.bmp');

imagesc(rgbIm);

axis('image');

imwrite(rgbIm, 'buckeyes\_rgb.jpg');

pause;

A group of football players

Description automatically generated with low confidenceA group of football players

Description automatically generated with medium confidence

1. grayIm = rgb2gray(rgbIm);

imagesc(grayIm);

axis('image');

pause;

A group of football players

Description automatically generated with low confidence

zBlock = zeros(10, 10);

oBlock = ones(10, 10) \* 255;

pattern = [zBlock oBlock; oBlock zBlock];

checkerIm = repmat(pattern, 5, 5);

imwrite(uint8(checkerIm), 'checkerIm.bmp');

Im = imread('checkerIm.bmp');

imagesc(Im)

colormap('gray')

axis('image');

A black and white checkered background

Description automatically generated with medium confidence

1. The converted image looked identical to the original gray image that was read in and displayed. The checkerboard was a 10 by 10 grid of black and white squares.