#Patrick Gonzalez

#Midterm: CSUMBy filter

#This filter will take a selfie image and will replace the pixels in the top right to that of an image of the CSUMB logo.

#Then replace the background of the logo with that of the selfie.

#Then ask the user to type in their graduating year to write in the bottom of the image with a gold backdrop.

def CSUMBy():

#CSUMB logo Image

logo = makePicture(pickAFile())

#Selfie Image

selfie = makePicture(pickAFile())

#replace the background of the logo with that of the selfies right corner of the image

newLogo = greenScreen(logo,selfie)

#replace the right coroner of the selfie with the new logo that has the respective backdrop

for x in range(0, getWidth(newLogo)):

for y in range(0,getHeight(newLogo)):

c = getColor(getPixel(newLogo,x,y)) #copies the color of the pixel of the logo

p = getPixel(selfie,x,y) #points to the location of the selfie to replace

setColor(p,c)

#add a golden backdrop for the graduation year message to go over

selfie = backDrop(selfie)

#Input the graduating year message

selfie = askNwriteQuestion(selfie)

repaint(selfie)

show(selfie)

writePictureTo(selfie, "C://Users/Patri/Desktop//CSUMByReulst.jpg")

#replace the background of the logo with that of the selfie

#Patameters: greenPic is the picture with the green backgraound that we are going to replace

# picBkg is the background of the image the will take place of the green pixels in greenPic

def greenScreen(greenPic,picBkg):

#bkColor = makeColor(0,0,0)

for x in range(0, getWidth(greenPic)):

for y in range(0, getHeight(greenPic)):

px = getPixel(greenPic, x, y)

pxBG = getPixel(picBkg, x, y)

color = getColor(px)

colorBG = getColor(pxBG)

if distance(color, white) < 200.0:

setColor(px, colorBG)

return greenPic

#ASk the user what is there graduating year

# If they input anything but an integer ask the question again

#Then write the message on to the bottom of the pic

#Parameters: pic is the pic that the message will be written on

def askNwriteQuestion(pic):

#Question

while True:

try:

year = int(raw\_input("Enter your graduating year:"))

except ValueError:

print "Sorry you didnt enter a graduating year."

else:

break

#Write message

message = "Class of %s" %(year)

FontColor = makeColor(0,25,50)

import java.awt.Font as Font

custFont = makeStyle("Georgia", Font.BOLD, 80)

addTextWithStyle(pic,(getWidth(pic)-508)/2,getHeight(pic)-22,message,custFont,FontColor)

return pic

#add a golden backdrop for the graduation year

def backDrop(pic):

color = makeColor(115,102,55)

addRectFilled(pic,0,getHeight(pic)-100,getWidth(pic),getHeight(pic),color)

return pic