

CSC4140 Assignment II

Computer Graphics

February 24, 2022

Transformation

This assignment is 5% of the total mark.

Strict Due Date: 11:59PM, Feb 25th, 2022

Student ID: 118010335

Student Name: Wei WU

This assignment represents my own work in accordance with University regulations.

Signature:

1 From Model to Screen

Note: Please reinstall OpenCV2 from the official website.

1.1 Default Parameters

`eye_position = [0, 0, 8]`

`rotation_angle = -45`

`T = [1, 1, 0.5]`

`S = [0.5, 2, 3]`

`P0 = [1, 2, 3]`

`P1 = [20, 5, 3]`

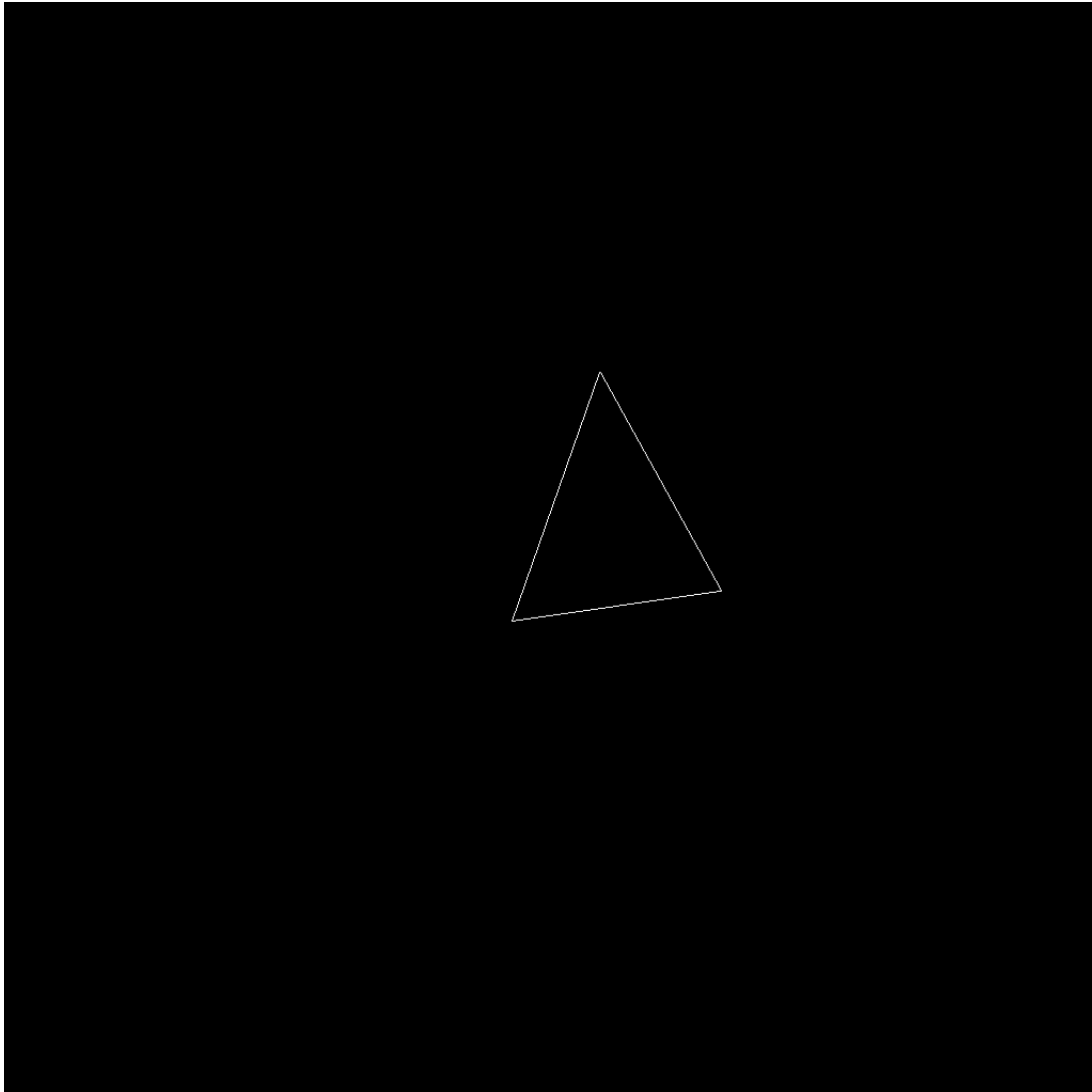
`pos = [2, 0, -2; 0, 2, -2; -2, 0, -2]`

`eye_fov = 45`

`aspect_ratio = 1`

`zNear = 0.1`

`zFar = 50`



1.2 Parameters 2

`eye_position = [0, 0, -1]`

`rotation_angle = -45`

`T = [1, 1, 0.5]`

`S = [0.5, 2, 3]`

`P0 = [1, 2, 3]`

`P1 = [20, 5, 3]`

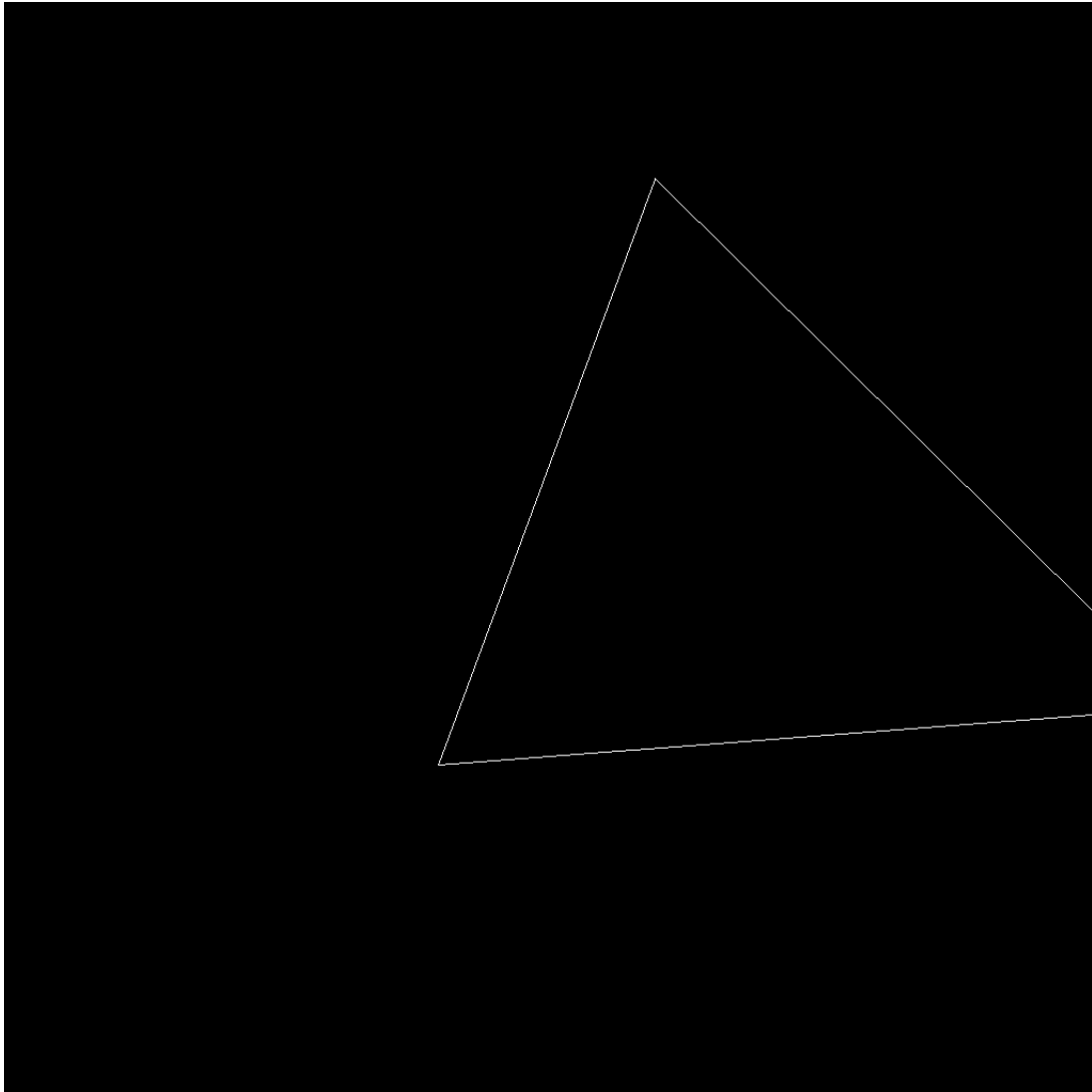
`pos = [2, 0, -2; 0, 2, -2; -2, 0, -2]`

`eye_fov = 45`

`aspect_ratio = 1`

`zNear = 0.1`

`zFar = 50`



1.3 Parameters 3

eye_position = [0, 0, 8]

rotation_angle = -45

T = [-5, 1, 0.5]

S = [0.5, 2, 3]

P0 = [1, 2, 3]

P1 = [20, 5, 3]

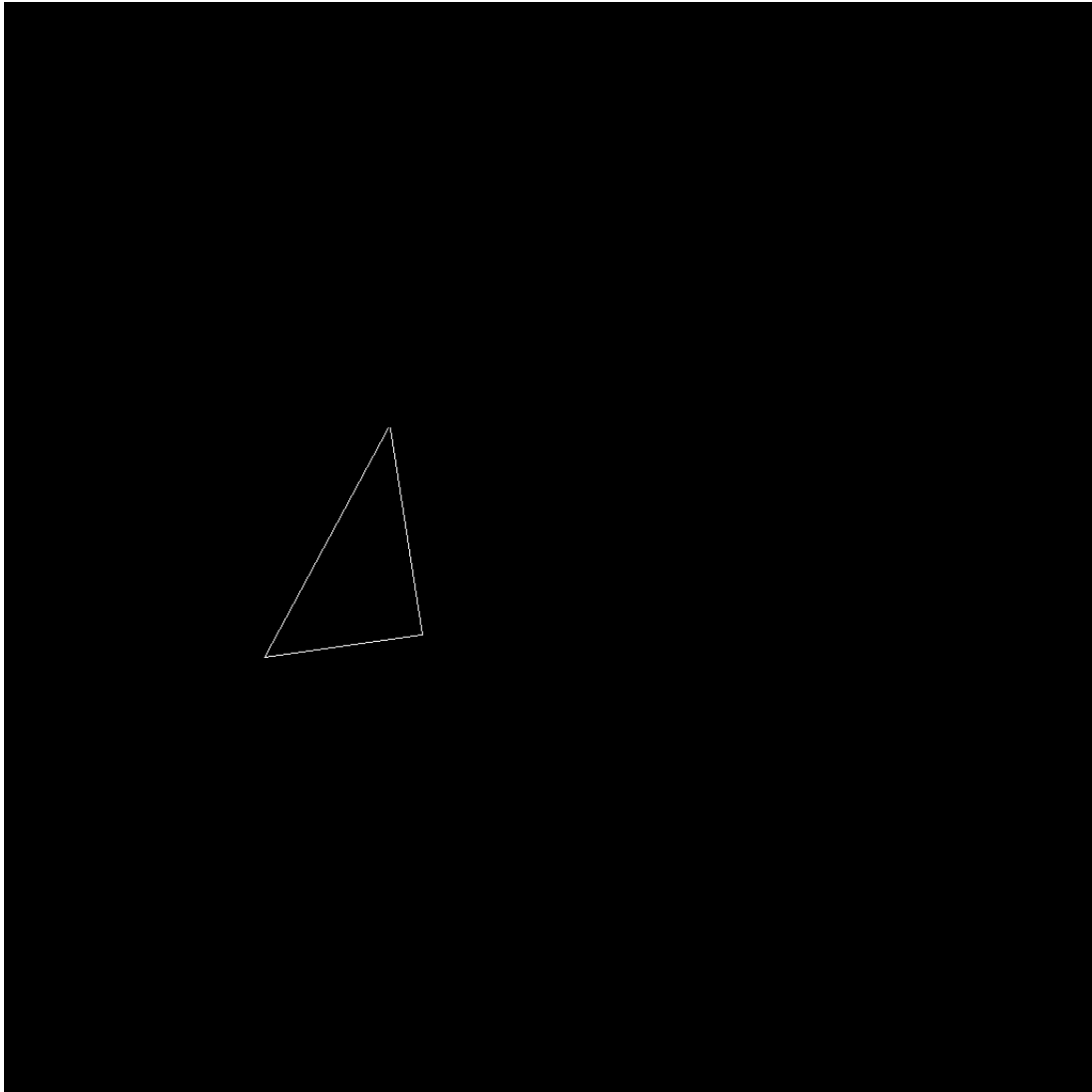
pos = [2, 0, -2; 0, 2, -2; -2, 0, -2]

eye_fov = 45

aspect_ratio = 1

zNear = 0.1

zFar = 50



1.4 Parameters 4

$\text{eye_position} = [0, 0, 8]$

$\text{rotation_angle} = -45$

$T = [1, 1, 0.5]$

$S = [0.5, 5, 3]$

$P0 = [1, 2, 3]$

$P1 = [20, 5, 3]$

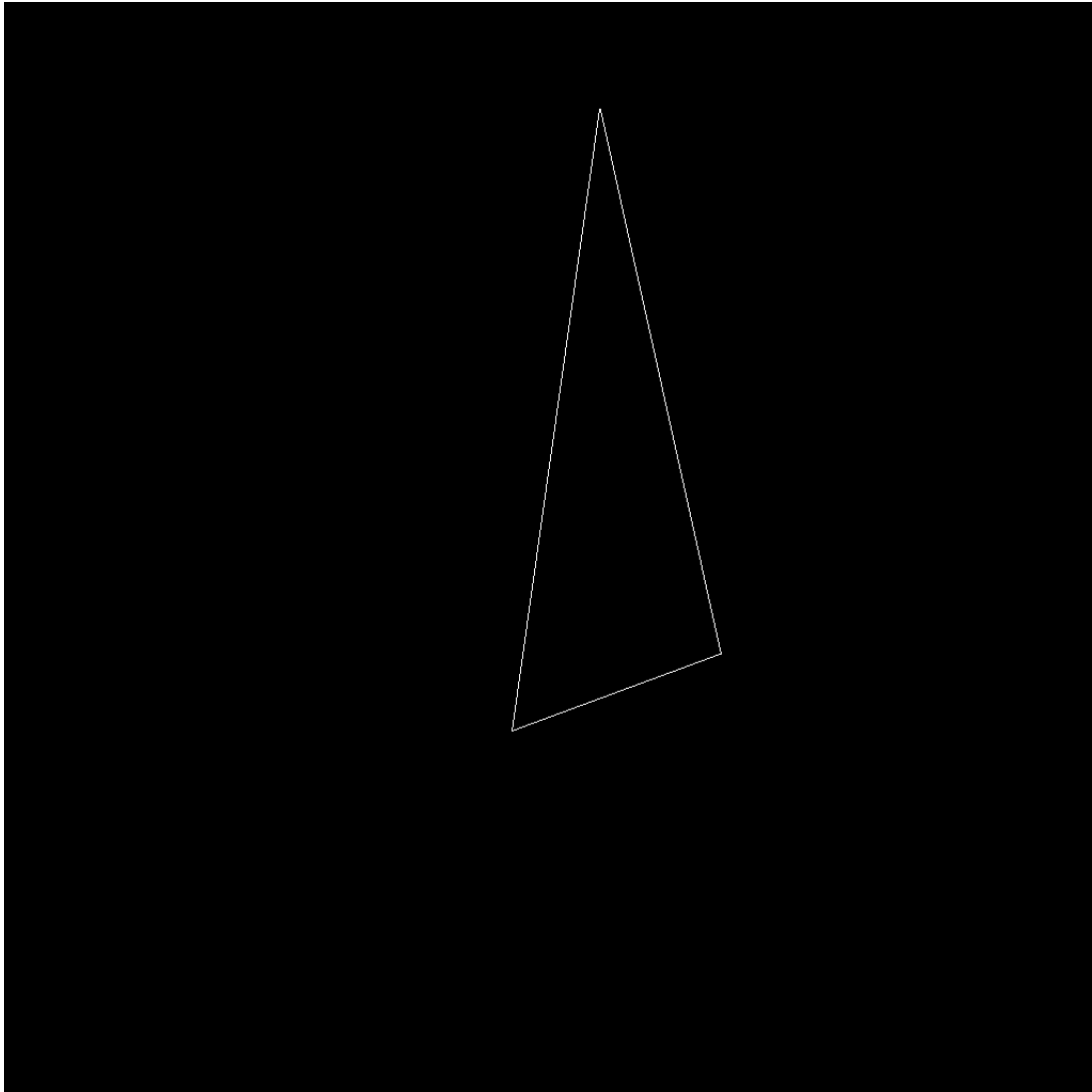
$\text{pos} = [2, 0, -2; 0, 2, -2; -2, 0, -2]$

$\text{eye_fov} = 45$

$\text{aspect_ratio} = 1$

$\text{zNear} = 0.1$

$\text{zFar} = 50$



1.5 Parameters 5

`eye_position = [0, 0, 8]`

`rotation_angle = -45`

`T = [1, 1, 0.5]`

`S = [0.5, 2, 3]`

`P0 = [1, 2, 3]`

`P1 = [2, 50, 3]`

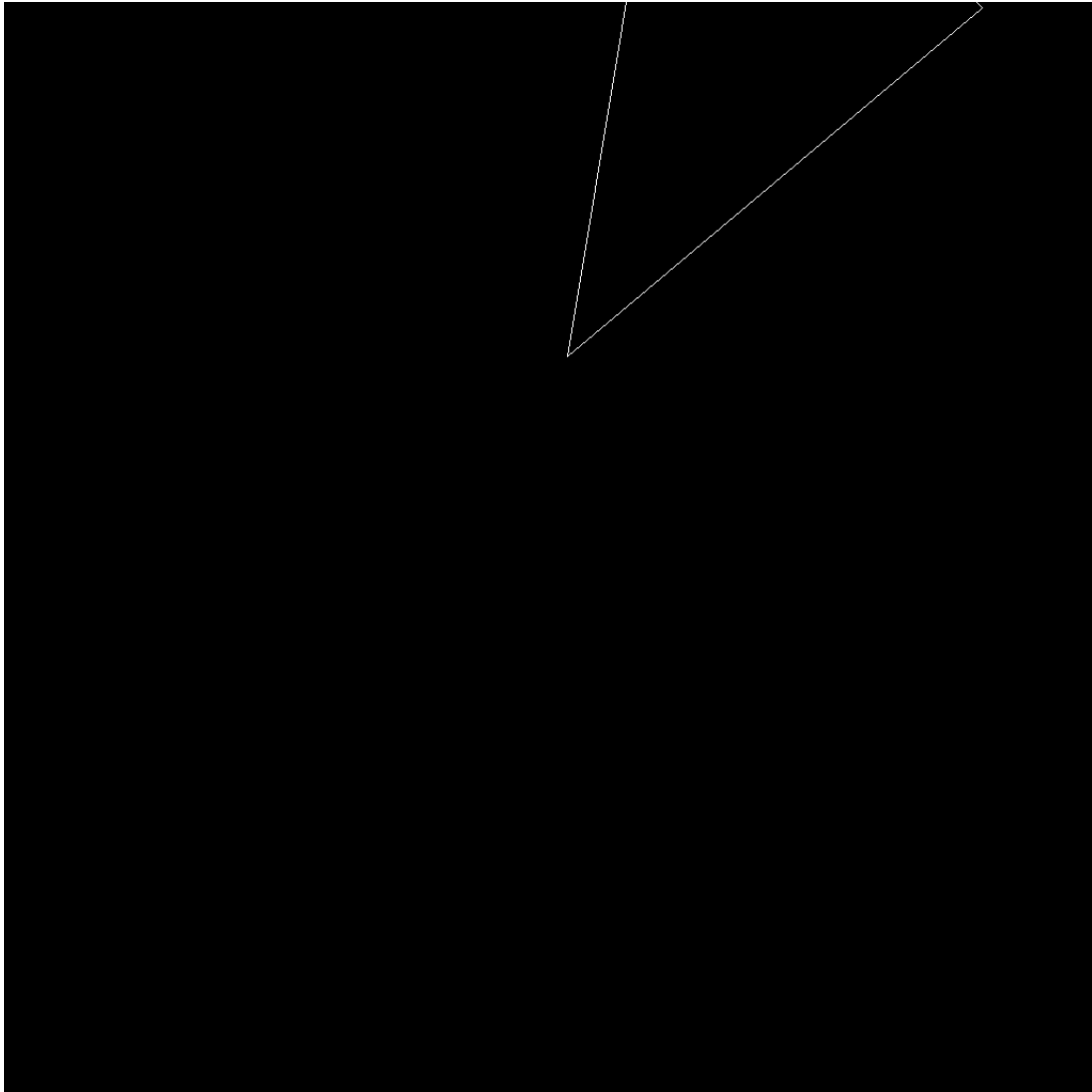
`pos = [2, 0, -2; 0, 2, -2; -2, 0, -2]`

`eye_fov = 45`

`aspect_ratio = 1`

`zNear = 0.1`

`zFar = 50`



1.6 Parameters 6

`eye_position = [0, 0, 8]`

`rotation_angle = 270`

`T = [1, 1, 0.5]`

`S = [0.5, 2, 3]`

`P0 = [1, 2, 3]`

`P1 = [20, 5, 3]`

`pos = [2, 0, -2; 0, 2, -2; -2, 0, -2]`

`eye_fov = 45`

`aspect_ratio = 1`

`zNear = 0.1`

`zFar = 50`

