CPE/CSC 101

Recommend a

song or album.

(in chat, at any time)

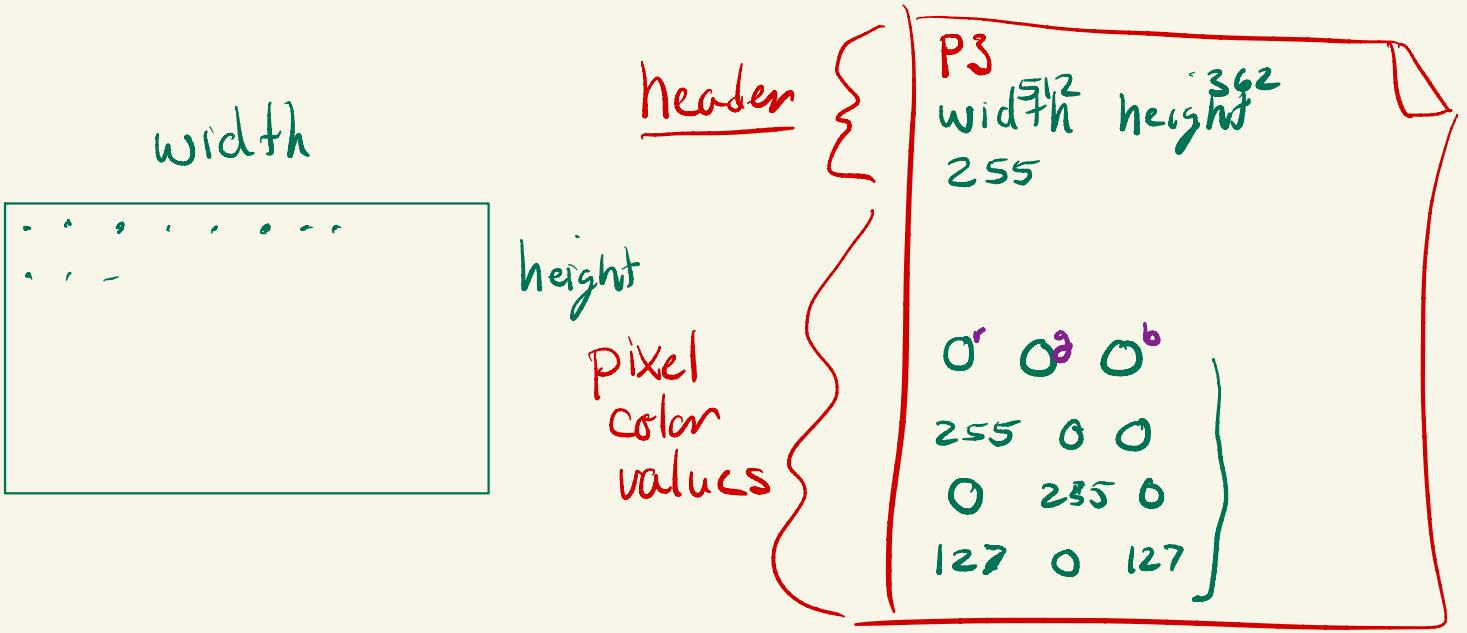
Today

- Python "program"
- Comments on Style
- Informal Thoughts on Computational Cost
  - Repeated Calculations
  - Additional Functions

ppm

casting_test

image.ppm



red = 0
green = 255
blue = 21

print (red, green, blue)

cast_all_rays

red = 0.0
green = 1.0
blue = 0.09

print(convert(red), - - -

Color

two models

int

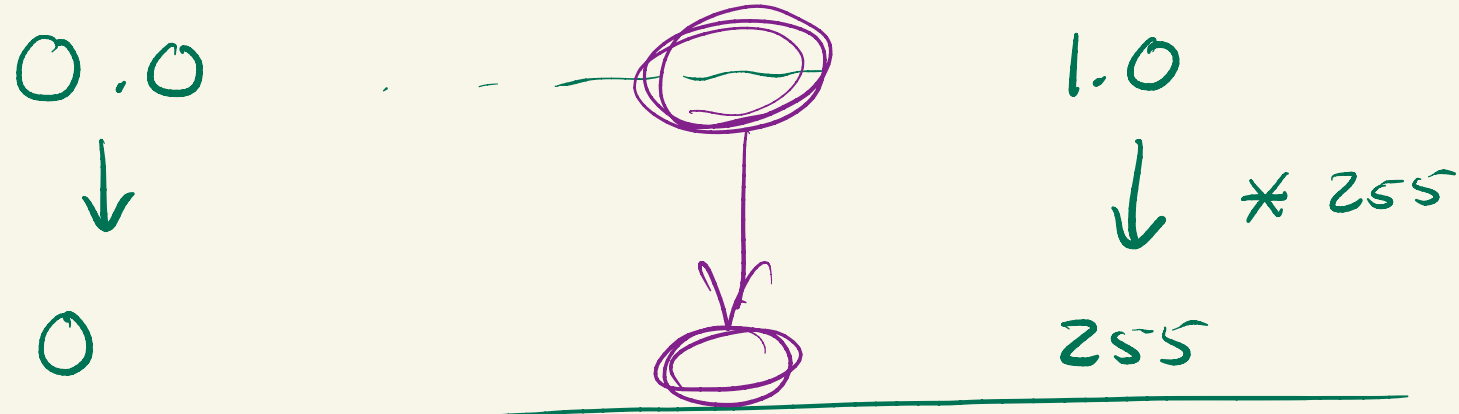
0 → 255

ppm format (external)

float

0.0 → 1.0

(internal)



"helper" function

out_value = int(in_value * 255)

out_value: int

in_value: float

casting_test.py

```
import ...

def main():
    # set up scene
    # eye, spheres

    cast.cast_all_rays(
        ...
    )


if __name__ == '__main__':
    main()
```

python3 casting_test.py

```
class Point:
    def __init__(self, x: float, y: float):
        self.x = x
        self.y = y

class Example:
    def __init__(self, values: List[Tuple[Point, float]]):
        self.values = values

list : List[Example] = ...
```

tuple

list[3].values[2][0].x

index into list

Point

access attribute in object