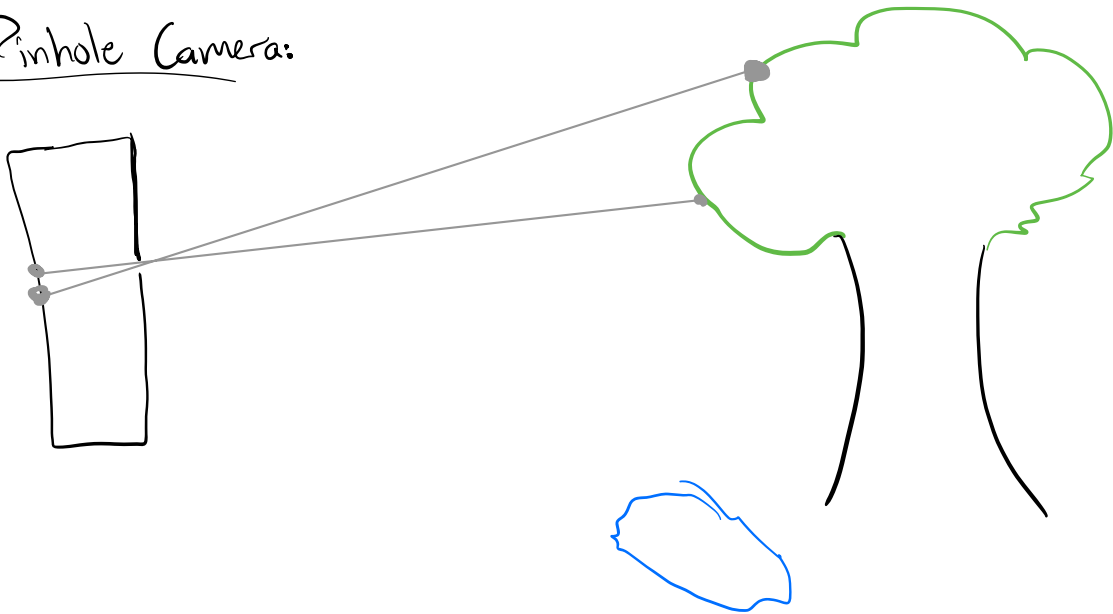


# Lecture 1: Image Formation and Representation Basics

Pinhole Camera:



---

Image Representation

Computers: ndarray (height, width, 3)  
↻ red  
green  
blue

Math: function from position to intensity

gray:  $f: \mathbb{R}^2 \rightarrow \mathbb{R}_{\geq 0}$

color:  $f: \mathbb{R}^2 \rightarrow \mathbb{R}_{\geq 0}^3$