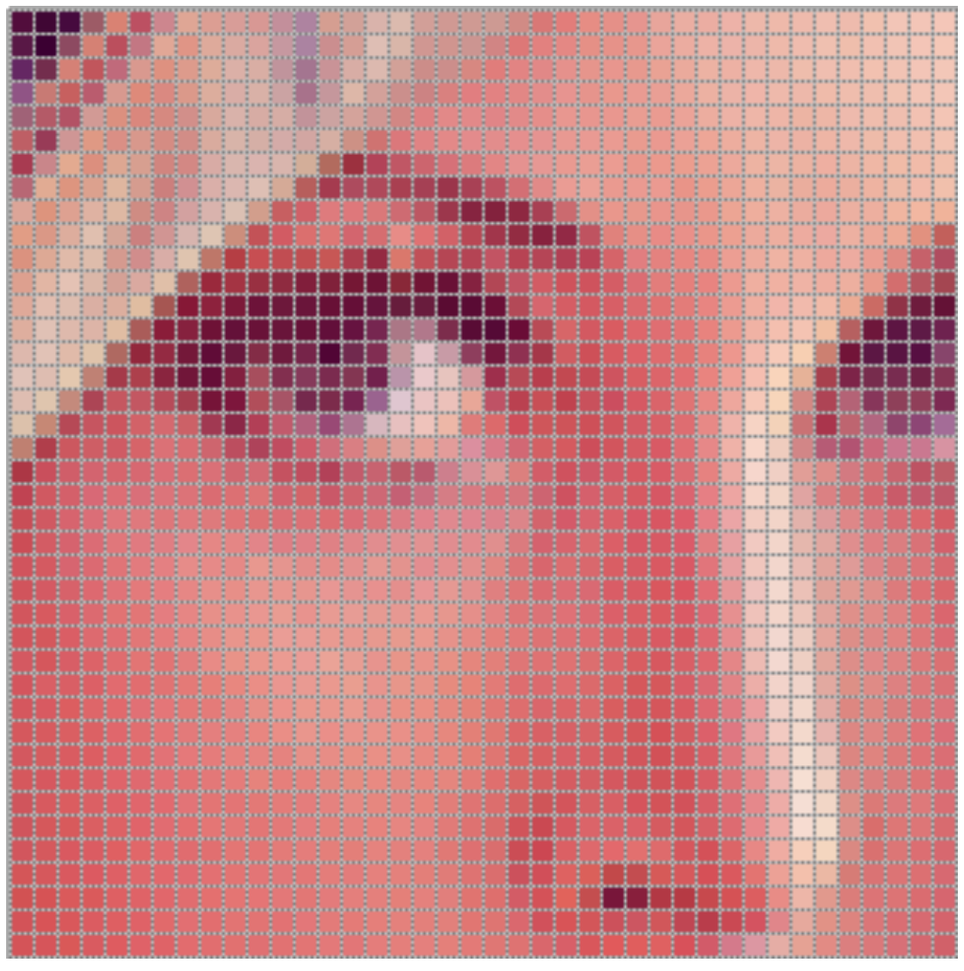
3D Reconstruction with Computer Vision

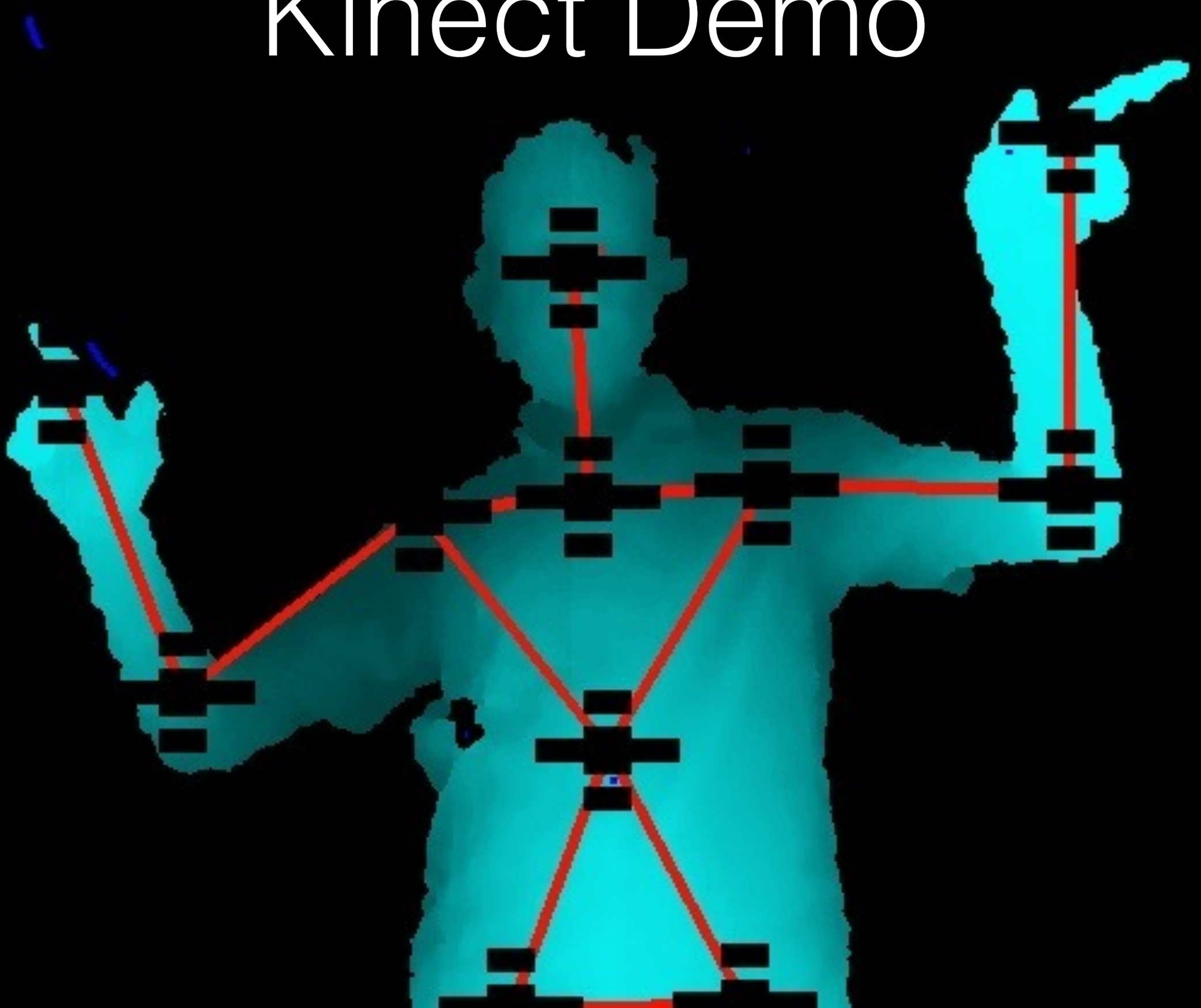


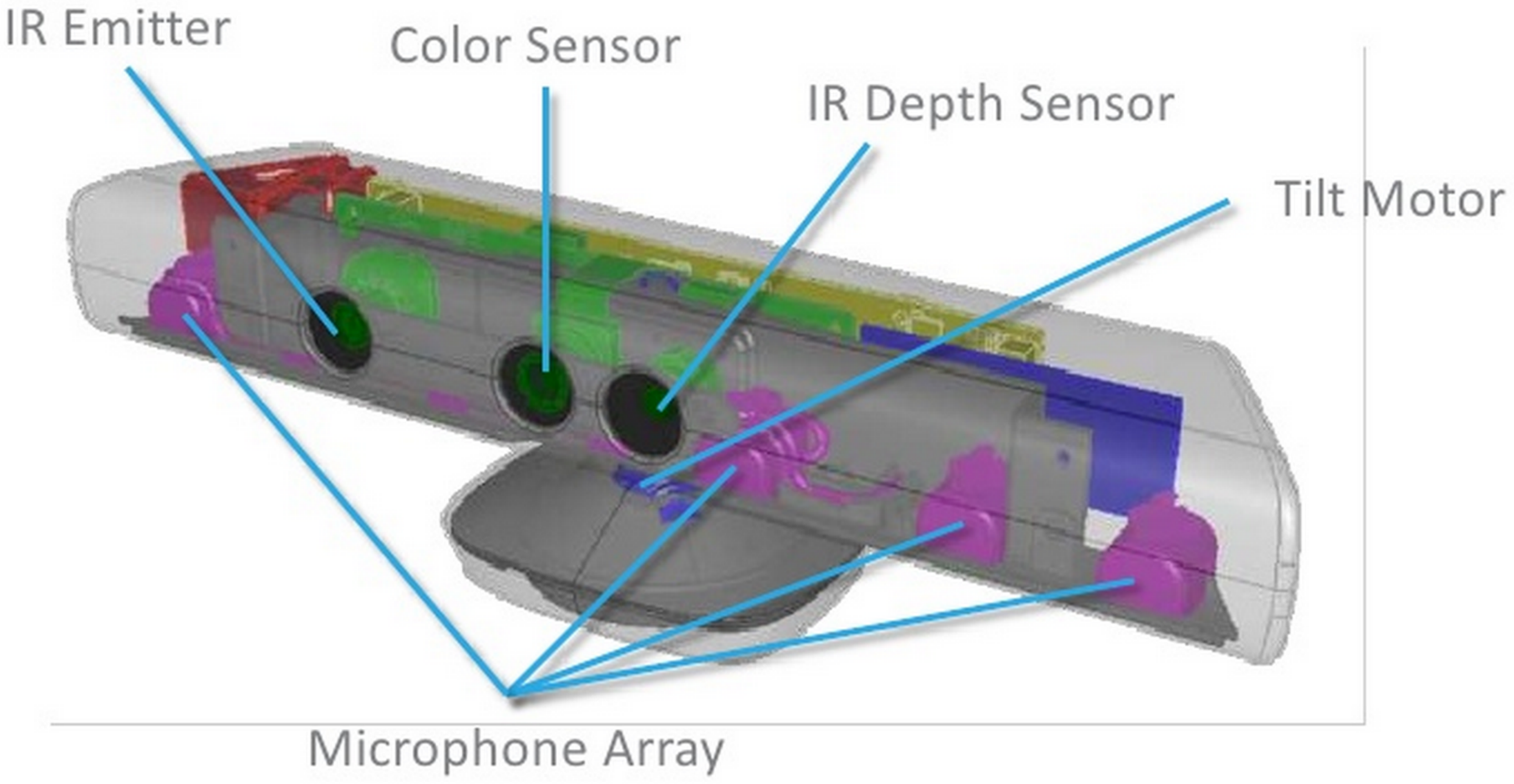
Meeting 1: Introduction and Image Basics

28 August

CS 378 Fall 2014, Bryan Klingner

Kinect Demo




IR Emitter
Color Sensor
IR Depth Sensor
Tilt Motor
Microphone Array

Source: Curious Inventor

Course info and syllabus!

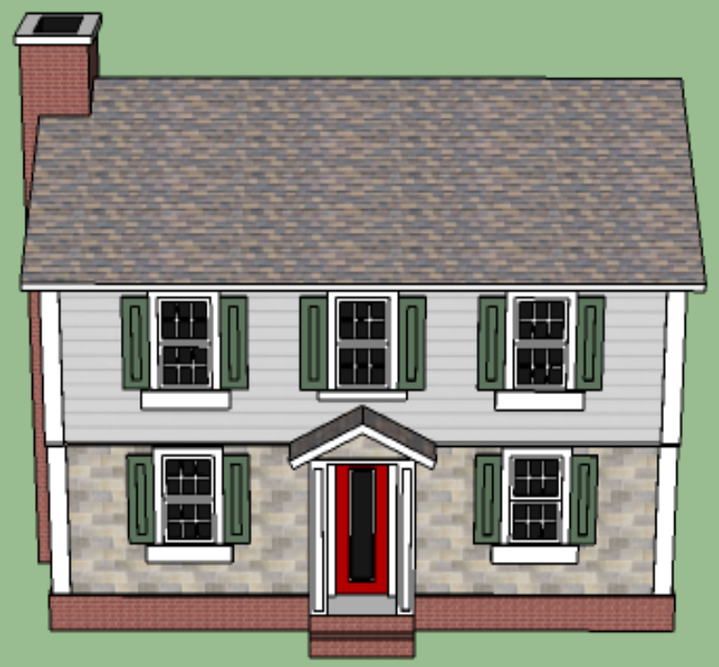
What you'll learn to do in this course:

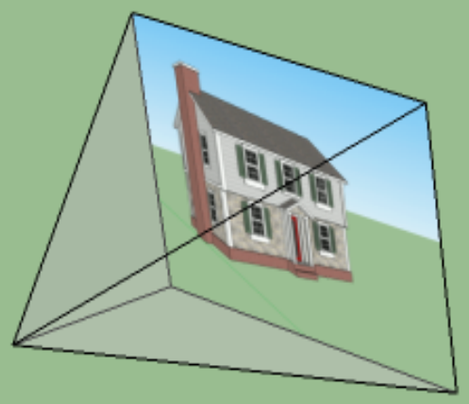
1. Extract 3D info from 2D images

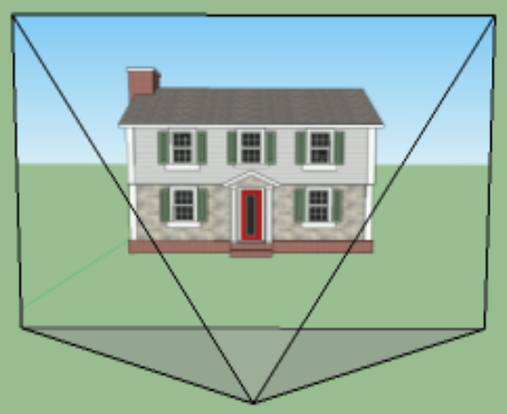
2. Use scientific libraries effectively

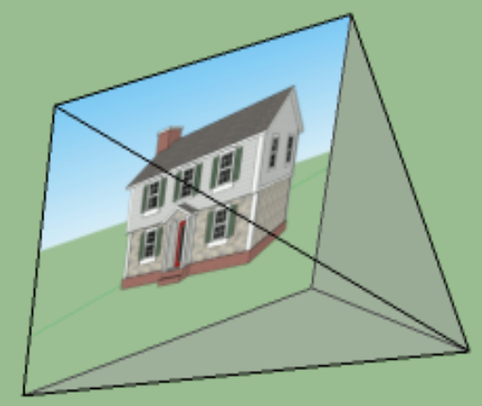
3. Code like a pro

1 Extract 3D info from 2D images

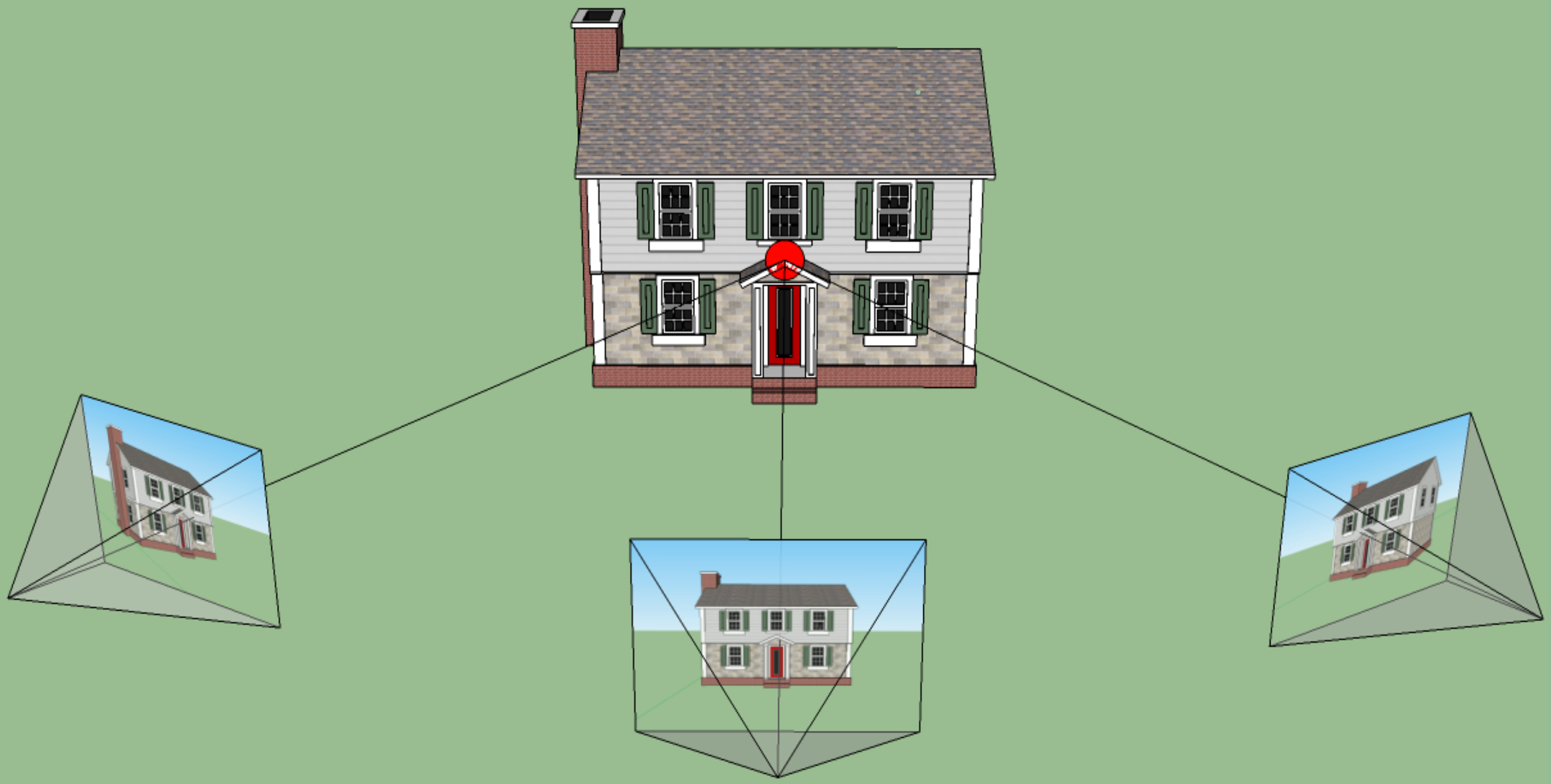




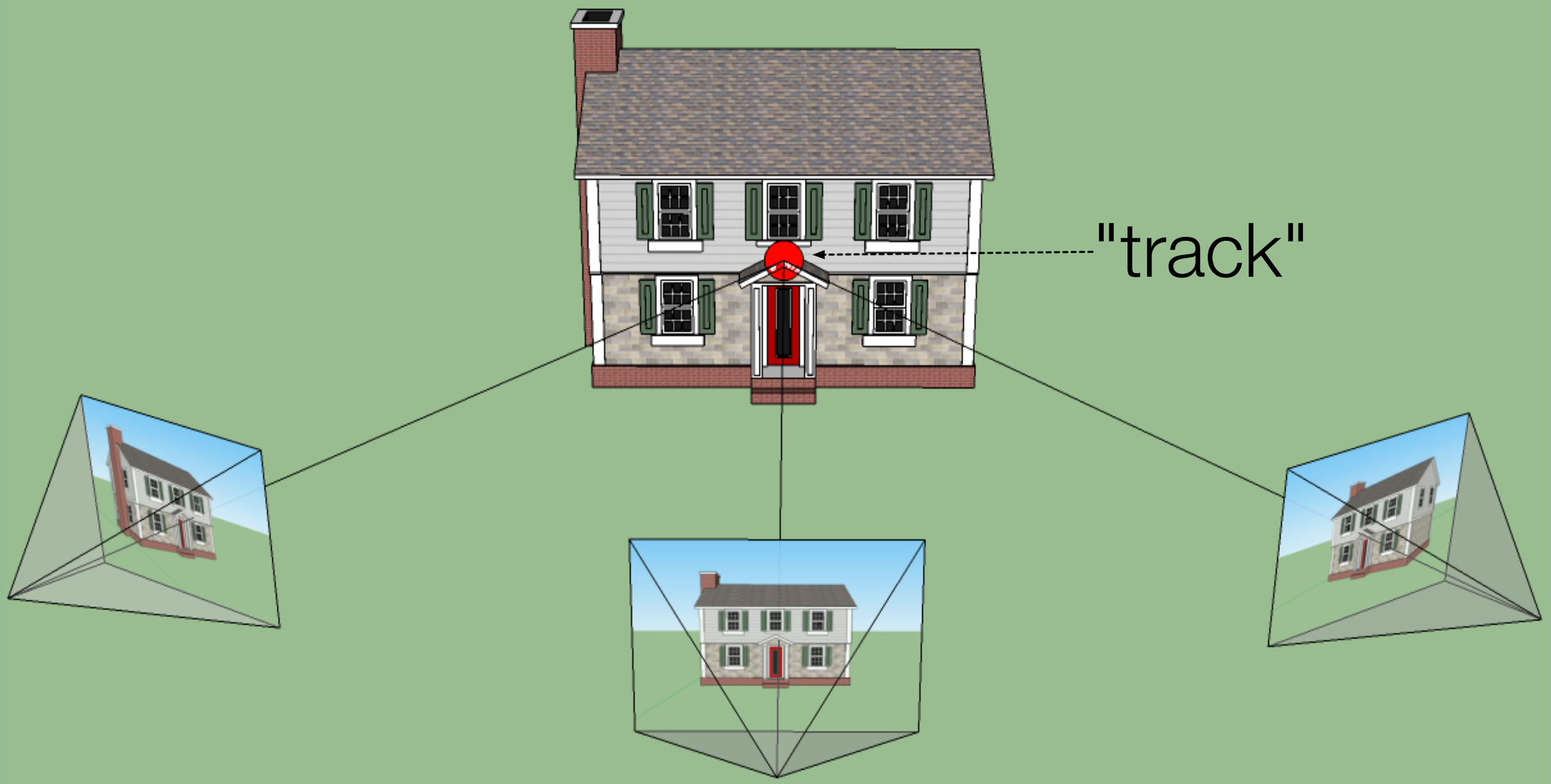




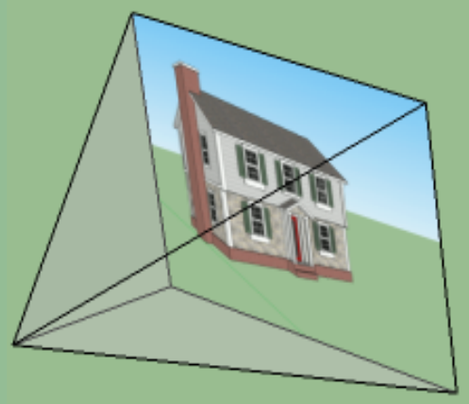
1 Extract 3D info from 2D images

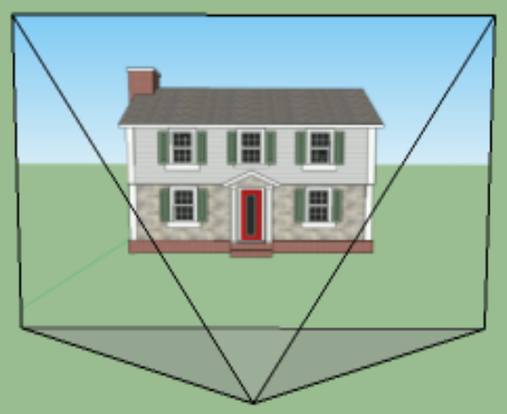


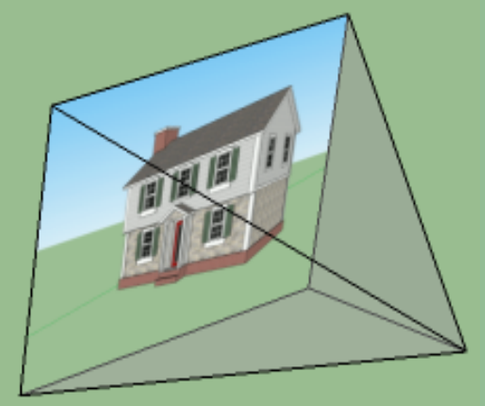
1 Extract 3D info from 2D images



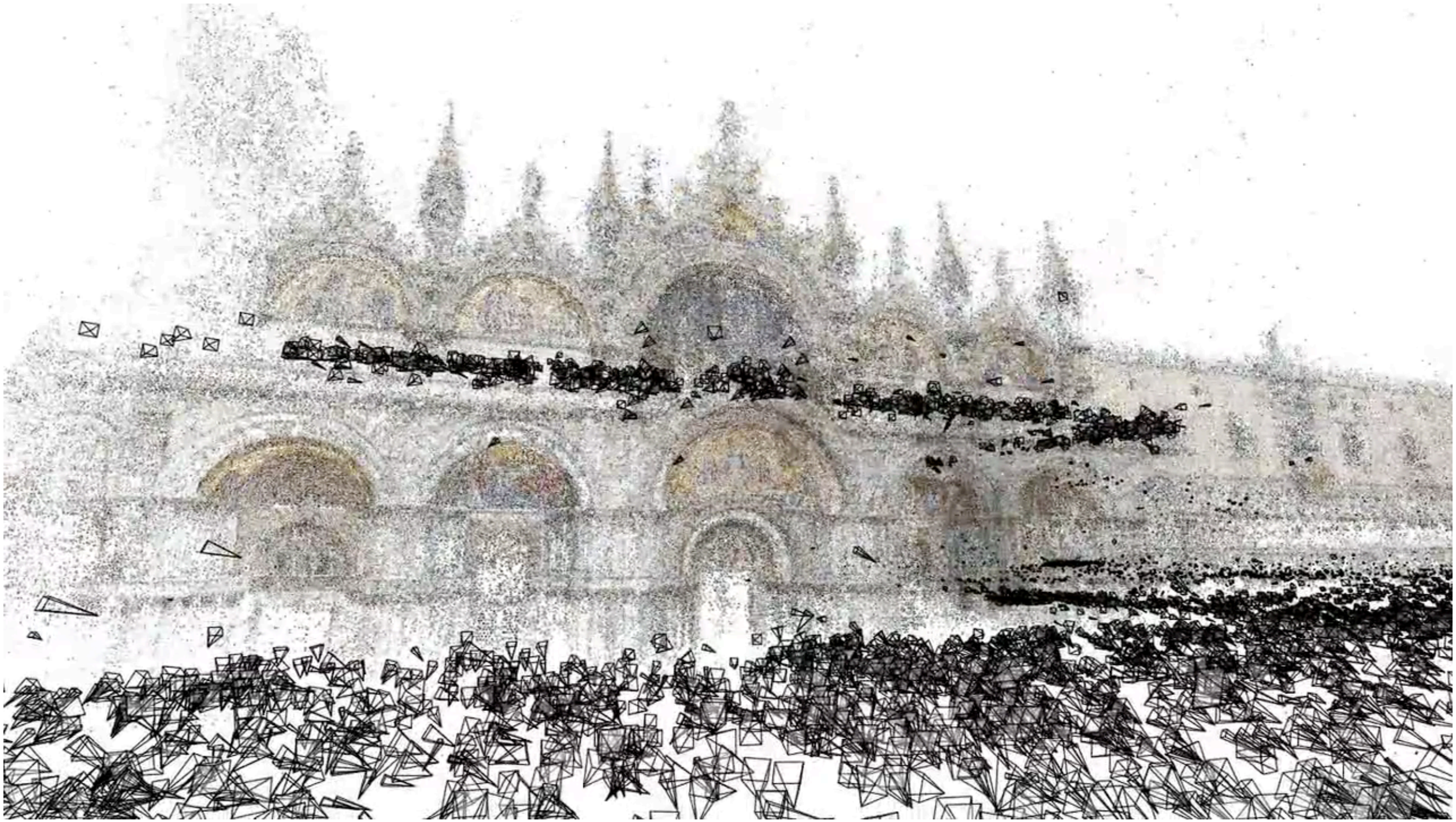
1 Extract 3D info from 2D images







1 Extract 3D info from 2D images



Source: Building Rome in a Day

Project 1: Stitching Panoramas

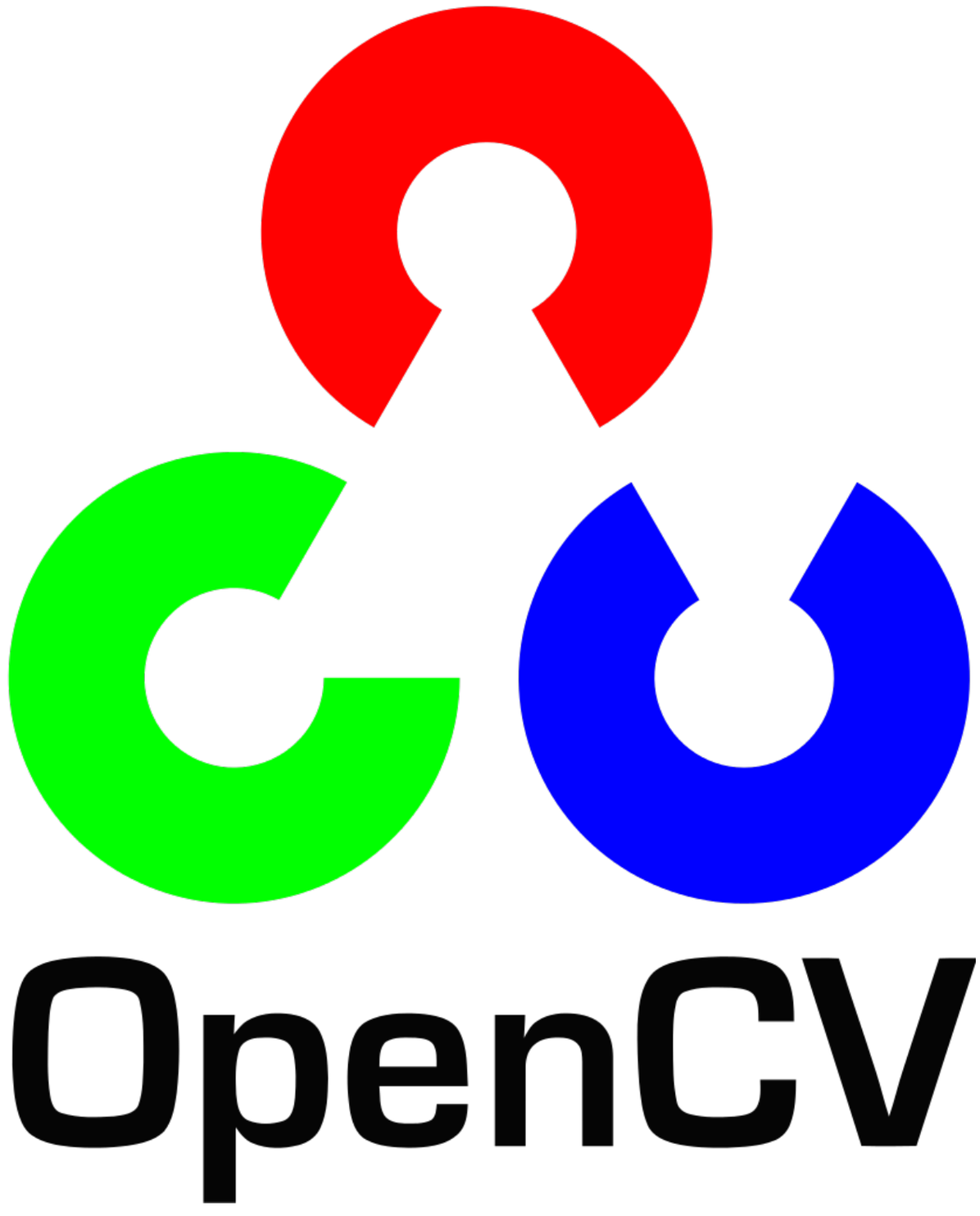
Source

Project 2: Stereo Vision

Project 3: Real-time 3D tracking

Project 4: You decide!

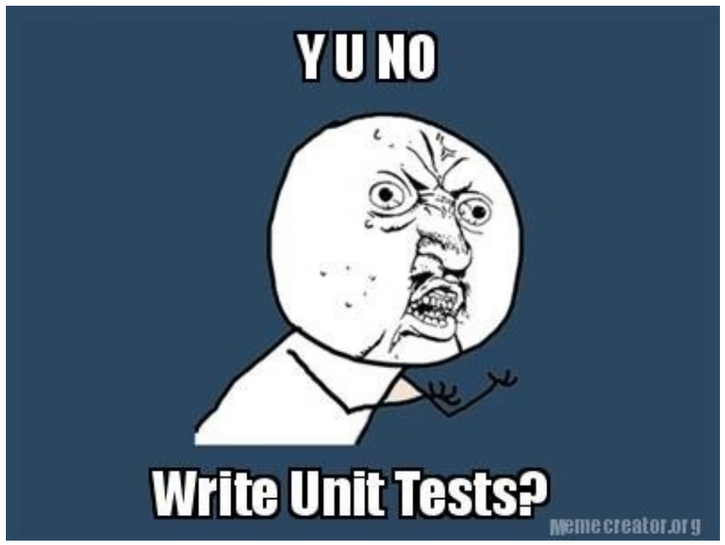
② Use scientific libraries effectively



Demo!

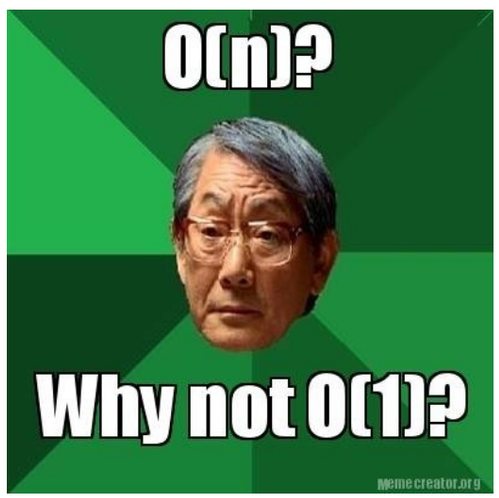
3 Code like a pro

Version control



Testing

Code review



Consistent style

GitHub Setup