Syllabus of CSE152

Hao Su

September 2018

Unit 0	Introduction and Math background
1	Introduction + Exam
2	Color+Math basics
3	Linear algebra
Unit 1	Low-level Vision
4	Frequency Analysis
5	Resizing
6	Filters and Edge
7	Classical Local Features
8	Basics of Deep Feature Learning
Unit 2	Motion
9	Tracking and Optical Flow I
10	Tracking and Optical Flow II
11	Correspondence, RANSAC
Unit 3	3D Vision
12	Mid-term Exam + Stereo
13	Multiview Geometry
14	Structure from Motion
15	Shape from X
Unit 4	Image Understanding
16	Dimension Reduction (PCA)
17	Grouping (K-means, Line fitting, N-cut)
18	Classification
19	Object Detection, Semantic Segmentation
20	Modern Computer Vision and Final Review