


CS231A: Computer Vision, From 3D Reconstruction to Recognition

Syllabus

Lecture	Date	Title	Download	Reading	Instructor
1	1/03/2022	Introduction	[slides]		Jeannette Bohg
	1/03/2022	Problem Set 0 Released	[pdf] [code] [Latex template]		
2	1/05/2022	Camera Models	[slides]	[FP] Ch.1 [HZ] Ch.6	Silvio Savarese
	1/07/2022	Problem Set 1 Released	[pdf] [code] [Latex template]		
	1/09/2022	Problem Set 0 Due : 11:59PM			
TA 1	1/07/2022	Python Introduction and Linear Algebra Review	[slides]	Any linear algebra textbook [HZ] ch.2,4	JunYoung
3	1/10/2022	Camera Models II and Camera Calibration	[slides]	[FP] Ch.1 [HZ] Ch.7	Silvio Savarese
4	1/12/2022	Single View Metrology	[slides]	[HZ] Ch.2,3,8 [Hoiem & Savarese] Ch.2	Silvio Savarese
TA 2	1/14/2022	Problem Set 1 Review	[slides]		Andrey
	1/17/2022	*Martin Luther King Jr. Day (No class)*			
5	1/19/2022	Epipolar Geometry	[slides]	[HZ] Ch.4,9,11 [FP] Ch.7,8	Silvio Savarese
	1/21/2022	Problem Set 2 Released	[pdf][code] [Latex template]		
	1/21/2022	Problem Set 1 Due: 11:59PM			
TA 3	1/21/2022	Course Project Outline	[slides]		Krishnan
6	01/24/2022	Stereo Systems	[slides]	[HZ] Ch.9, 18 [FP] Ch.7,8	Silvio Savarese
7	01/26/2022	Structure from Motion	[slides]	[HZ] Ch.10,18,19 [FP] Ch.13 [Szelisky] Ch.7	Silvio Savarese
	01/27/2022	Project Proposal Due: 11:59PM			
TA 4	01/28/2022	Problem Set 2 Review	[slides]		JunYoung
8	01/31/2022	Active Stereo & Volumetric Stereo	[slides]	[Szelisky] Ch.11 [Savarese et al.] [Seitz et al.]	Silvio Savarese
9	02/02/2022	Fitting and Matching	[slides]	[HZ] Ch.4,11 [FP] Ch.10	Andrey Kurenkov
TA 5	2/04/2022	Introduction to Neural Networks	[slides]		Yinan
	02/04/2022	Problem Set 2 Due: 11:59PM			
	2/04/2022	Problem Set 3 Released	[pdf] [code] [Latex template]		
10	2/07/2022	Representations and Representation Learning	[slides]		Jeannette Bohg
11	2/09/2022	Monocular Depth Estimation and Feature Tracking	[slides]		Jeannette Bohg
TA 6	2/11/2022	Midterm Review	[slides]		JunYoung
	02/14/2022	Midterm released		Details on Canvas	
12	02/14/2022	Optical and Scene Flow	[slides]	paper	Jeannette Bohg
13	02/16/2022	Optical and Scene Flow II	[slides]	paper	Jeannette Bohg
TA 7	02/18/2022	Probability + Problem Set 3 Review	[slides]		Krishnan
	02/20/2022	Project Milestone Due: 11:59PM			
	2/21/2022	*Presidents' Day (No class)*			
14	02/23/2022	Optimal Estimation I	[slides]	[PB] Ch 2, Ch 3.1-3.3	Jeannette Bohg
	02/25/2022	Problem Set 4 Released	[pdf] [code] [Latex template]		
TA 8	02/25/2022	Final Project Q/A	[slides]		Chen
	02/28/2022	Problem Set 3 Due: 11:59PM			
15	02/28/2022	Optimal Estimation II	[slides]	[PB] Ch 4.2, Paper 1 Paper 2	Jeannette Bohg
16	03/02/2022	Neural Radiance Fields I	[slides]	NeRF website	Jeannette Bohg
TA 9	03/04/2022	Problem Set 4 Review	[slides]		Andrey
17	03/07/2022	Neural Radiance Fields II	[slides]	Paper 1 Paper 2	Jeannette Bohg
18	3/09/2022	Guest Lecture			Angjoo Kanazawa
	03/11/2022	Problem Set 4 Due: 11:59PM			
TA 10	03/11/2022	Final Project Presentation Guidelines	[slides]		Chen
	3/14/2022	Project Presentations			
	3/18/2022	Project Final Report Due: 11:59PM			