Week of	Agenda/Topic	Reading(s)	Due
1/7	Introduction to Computer Vision and Imaging Systems Cameras		
1/10	System Configurations Digital Cameras and Images Color Standards Introduction to OpenCV		
1/14	Image Formats Image Compression OpenCV methods and operations PEP8 standard		
1/21	Basic Image Arithmetic Pixel Transforms Histograms		
1/24	Geometric Transformations Image Noise Linear vs. Nonlinear Filtering		
1/28	Edges and Lines Edge Detection		
1/31	Line Detection Corner Detection Convolution Introduction to Pandas		
2/4	Introduction to Machine Learning Supervised ML Introduction to Matplotlib Optimization Linear Regression		
2/7	Unsupervised ML KNN		
2/14	Neural Networks		
2/18	Assignment 1 Presentation		

2/21	Machine Learning for Vision Convolutional Neural Networks
2/25	Study Week
2/28	Study Week
3/4	Midterm
3/7	Regularization Overfitting BatchNorm Image augmentation CAPTCHA code identification
3/11	Advanced CNNs AlexNet VGGNet Going deeper
3/18	Assignment 2 presentations
3/21	Vision tools Computer Vision modern techniques YOLO Ultralytics MediaPipe
3/25	Segmentation Medical Imaging UNet
3/28	In-class project Implementing a project from 0 to 100
4/1	Complete left behinds
4/4	Modern computer vision topics Future of Computer Vision Generative models Introduction to Transformers Introduction to Vision Transformers
4/8	Project presentation

4/11	Review Semester Elaborating deeper into topics Ideas for further developments and improvements
4/15	Q&A