



Practical Computer Vision Orientation



담당: 10기 조규선

Purpose

1. Various Applications of Computer Vision
2. Basic Coding Challenges for Future Projects
3. An Introductory Course for Future Advanced Studies

Prerequisites

1. Dense Neural Networks, GD and BP
2. Basics of CNN and RNN
3. Deep Learning Coding Experience (Keras, Tensorflow, Pytorch)

How?

1. 1교시 개론
2. 2교시 Lab 코딩 실전
3. HW: 프로젝트, 심화 원리

Syllabus

Week	Class 1	Class 2	Homework
Week 1 (01. 14) CNN and openCV	What Shall We Do?	OpenCV Practice (LAB Session)	Image and Video Processing with openCV
Week 2 (01. 21) CNN Architecture	Advancements in CNN Architecture	Image Classification with Deep Learning (LAB Session)	Image Classification (Dogs vs Cats)
Week 3 (01.28) Object Detection	Object Localization and Detection	SSD & MobileNet (LAB Session)	Car Detection with YOLO

Syllabus

Week	Class 1	Class 2	Homework
Week 4 (02. 04) Image Segmentation	Features and Object Recognition	Image Segmentation (LAB)	Face Detection and Recognition
Week 5 (02. 18) Landmark Detection and Tracking	Object Motion and Tracking	Optical Flow and Feature Matching	Vehicle Localization with SLAM
Week 6 (02. 25) Neural Style Transfer	Neural Style Transfer	Generative Adversarial Networks (LAB)	Art Generation with Neural Style Transfer
Week 7 (03. 04)	Review	Review	Review

Thanks