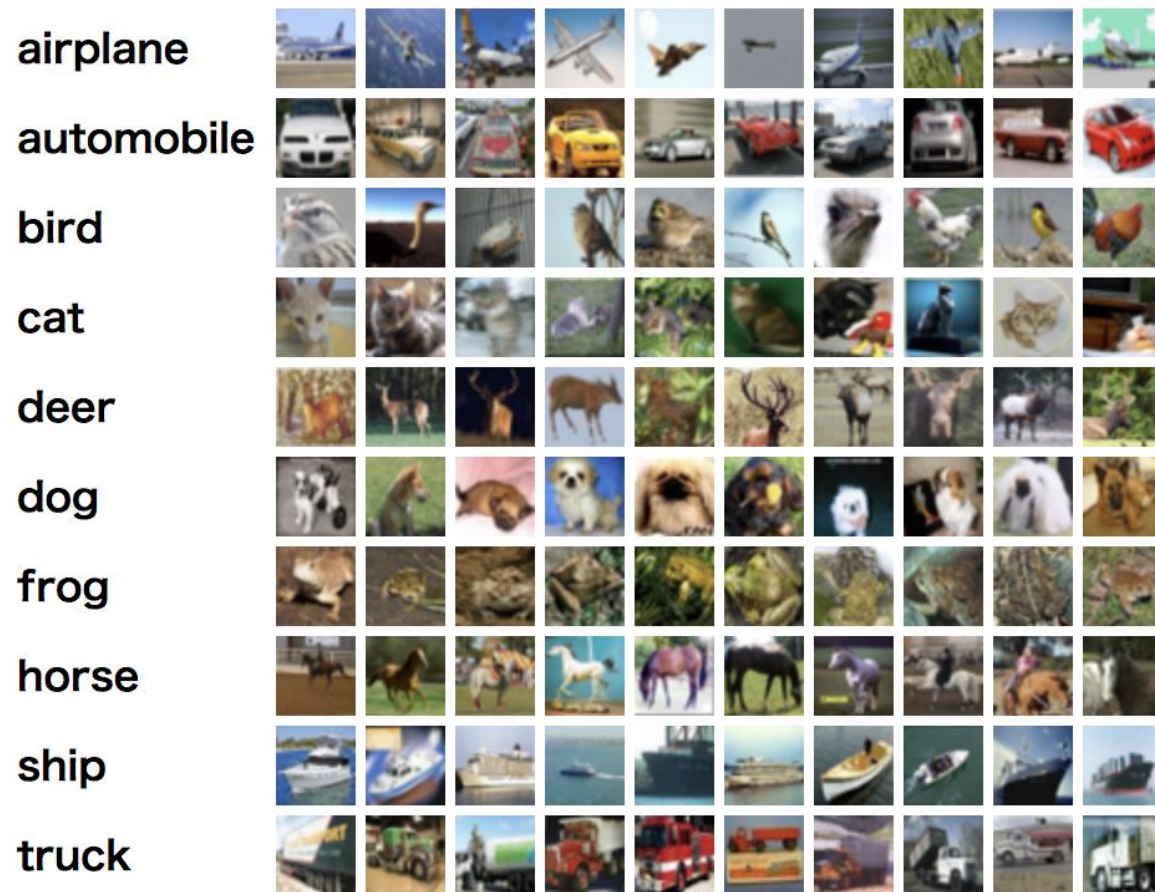# Pattern Recognition

Yukyung Choi

Introduction

- Text Book: Pattern Recognition (written by ill seok oh)
- Date: Tue./Thur. 12:00-13:30

- Lecture: Theory & Hand on Labs
- Teaching Assistant(TA): Please, email me. (9/5)

- Lecture Note: https://github.com/sejongresearch/2019.Fall.PatternRecognition

Grade

- Mid exam(20) / Final exam(20) / Term project(50) / Attendance (10)

- Term Project
  - Implementation research paper step by step
    - Beyond bags of features spatial pyramid matching for recognizing natural scene categories, CVPR 2006

Term Project

Task: vision orientated project

Classification / Identification(Retrieval)

Term Project

- Term Project
  - Image classification using Pattern Recognition

- Step1-5
  - [step1] Kmeans Clustering ➔ Bag of words histogram
  - [step2] Vocabulary Tree ➔ VT based BoW
  - [step3] SVM Classification/Kernel Trick ➔ BoW classification
  - [step4] PCA/FV ➔ BoW ➔ PCA BoW / FV
  - [step5] Random Forest Classification

Time Schedule

- I will change the order of lectures as follow:

  - 1주차 What is a Pattern Recognition (소개)
  - 2주차 Kmeans Clustering (군집화)
  - 3주차 SVM (분류기)
  - 4주차 PCA (주성분분석)
  - 5주차 Tree (나무)
  - …

Q&A

- Any question?