CSE48001 Computer Vision Final-term Project [100 points]

Problem definition confirm deadline: until Nov. 30, 23:59
Submission deadline : until Dec. 23, 23:59

1. Problem definition [20 points]

Please analyze the results (ie. error rate, visualization result) from the Assignment 1 or 2 and propose an idea that can improve it. The idea could be about improving your Assignments 1 or 2 implementation by adding a new function or improving its accuracy.

Some default ideas are listed below:

a. Assignment 1
   i. Use CNN architectures for the same task (ie. object recognition) and compare its performance with the SVM-based framework you implemented in the Assignment 1.

b. Assignment 2
   i. Improve the accuracy of the hand pose estimation network you implemented in the Assignment 2 using Data Augmentation, Data Generation methods or changing the network architecture etc.
   ii. Develop a new function for the hand pose estimation network that can classify `Rock-paper-scissors' poses according to their estimated poses. It may require collecting some new data and their annotations for the classification labels.

You can select items from the list above or propose new items by yourself.

If you select 1 item from the above topics, the problem definition score is `15'.
If you select more than 1 item from the above topics, the problem definition score is `20'.
If you propose 1 item other than the default topics listed, the problem definition score will be evaluated based on its quality.

If you want to propose a new item other than the topics listed above, and want to estimate the score of it, please e-mail and ask directly to Prof. Baek (srbaek@unist.ac.kr) by the end of November (30th November) to finalize your topics.

2. **Problem solving [30 points]**

   [10 points] Proper choice for a method.
   [20 points] Actual implementation

3. **Report [50 points] Page limit: 3 page.**
   (You can write reports either in Korean or English. Also, the report should be submitted individually for each member of the team.)

   [10 points] Motivation and description for choosing the problem.
   [10 points] Method description (Clarity, Reproducibility,...)
   [15 points] Presentation and analysis on the results.
   [10 points] Description for the source code. [The actual source code could be uploaded once by the Team leader]
   [5 points] Please include the below table in each person's report and clearly state the role and responsibilities of each member.

Team member name	Role and responsibility	Contribution score
Yann Lecun	Data collection, Implementation	40%
Geoffrey Hinton	Idea propose, Implementation	40%
Andrew Ng	Implementation	20%