Mathematical Foundations for Computer Vision and Machine Learning

Byung-Woo Hong

Computer Science Department, Chung-Ang University

Assignment 06

Jupyter Notebook

- Create a new notebook for Python 3
- Include your name and the student ID in the notebook
- Write python 3 codes for the given assignment
- Try to separate the codes into meaningful blocks
- Write a comment for each block of codes
- Plot the important intermediate results
- Write a short description for each graphical result
- Use LaTeX for mathematical comments in the notebook
- Save the notebook file as assignment06.ipynb
- Download the notebook as a PDF file assignment06.pdf

Assignment 06

github

- Start a project or a directory for the assignment06
- Include the link to the giuhub for the assignment in the notebook
- Upload the notebook assignment06.ipynb to the github after the deadline (Note that your github project is visible to public)

Assignment 06

Submission to *eclass*

- Submit the PDF file assignment06.pdf to eclass
- Deadline is 11:59 pm on next Thursday. No extension
- Score ranges from 0 to 5

Assignment 06

Score Table

- The results should be correct
- The codes should be written in a modulated way
- The comment should be made for each block of the codes
- The important intermediate results should be presented
- The link to the github project should be included

Assignment 06

Straight-line fit

- Find a line that fits the given data by assignment06.py
- The approximating line is obtained by the least square approximate solution

Assignment 06

Essential Visualisation: line fitting

- Plot the noisy data (x, y_1)
- Plot the clean data (x, y_2)
- Plot the line that fits the noisy data by the least square error