Intro to Visual Media Programming

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First Contact

What will be covered:

1. Image/Video Processing
    a. small size coding almost every week
    b. a coding project during the first half of semester
    c. will provide concept of 2D grid-based graphics too.
    d. no group activity but discussion is encouraged.
    e. no copy & paste!
2. Creating pygame Applications
    a. mostly learning-by-doing and flipped learning
        i. mostly presentation by teams of upto 4 students
    b. basic concepts will be covered
    c. designing of a 2D game as a term-project
3. Concepts of Reinforcement Learning
    a. covered minimally due to …
        i. probability theory, deep neural network, coding capability, user interest, etc

Environment

- language: Python 3.x (SDL2 with C/C++)
- editor:
    - visual studio code, recommended & will be used during the class
    - jupyter (jupyterlab) notebook for report preparation
- image & video
    - numpy, cv2 (opencv-python), skimage, scipy
- 2D game making
    - pygame
- pip install
    - anaconda is also good
- too slow hardware?
    - use computer rooms in Sogang: Ga110, X423. Remote access is also possible.
    - use notebook service in kaggle.com & google colab
    - your own computers should be OK however old they are.

Grading

- At least one exam
- at least two projects (image/video & 2D game)
- several assignments
- team presentations
- class participation, general etiquette

Q&A