2/19/15

Project
Due **4/23/15** before class

Programming Project (40 points)

The task of this programming project is to implement an efficient geometric algorithm or data structure, including a graphical user interface (GUI), and demonstrate it in class. The default programming language is Java; any other choice of programming language needs to be approved by the instructor.

- Choose a **non-trivial and efficient** algorithm to implement. You are encouraged to discuss your choice with the instructor. If your algorithm is too simple, points may be deducted.

- Your program has to include an option to load input data from a file.

- Your program has to include a graphical user interface to enter the input, and to display the output.

Points will be given as follows: 15 points for the implementation of the algorithm, 10 points for the graphical user interface and for loading the input data from file, and 10 points for the demonstration/presentation at the end of the class. The remaining 5 *challenge points* can be earned in any of the categories above for particularly challenging or impressive work (e.g., implement and compare multiple algorithms, implement a very complicated algorithm, have a particularly impressive GUI, ...).