# Binpacking Algorithm Assignment

### Enclosed you will find two files.

### File 1: The “binpack-template.py” file is a Python script that needs work in order to provide a solution to the Bin Packing problem. You should focus your efforts on adjusting the script starting with line 96. Note, this template file is arranged to run all of the data sets in the following JSON file. Note, unlike in Assignment 1 – you will need to add code in order for this template to run and/or accomplish anything.

### File 2: The “binpack.json” file contains a number of data sets to test your algorithm. The above template code will test all of these data sets in succession (at the same time, one after the other, etc.).

### Your assignment is to create different bin packing algorithms to improve accuracy (optimality - that is - using the least number of bins to store all of the items) and efficiency (speed).

### Submit your final Python file with your preferred algorithm on Blackboard – changing only the area (binpack function) in the template code and maintaining the same data structure. It will be graded for accuracy and speed on Dr. Wilck’s machine, and compared against your peers (as defined in the rubric).

### Also submit your <1 page write-up explaining your approach (which may include figures) to Blackboard by the deadline.

See general rubric on Syllabus.

Assignment 2: Due April 3 by 11:59PM, Binpacking, Category C

What to submit to Blackboard (last submission posted by deadline will be graded):

Two files:

* Python Code
  + Do not use any special packages other than pandas or numpy, just create your own algorithm using lists, loops, functions, etc.
  + Do not change the format of the data, input, etc. I need these files to run without editing on my part when grading.
* Brief (no more than 1 page) description (write-up) of your approach, you may use a flowchart or some other graphic if the helps.