

**INFSCI 2591: Algorithm Design**  
**Project 1**  
**Due: February 7, 2017**

Write a program with a divide-and-conquer algorithm that finds the two indices ( $i$  and  $j$ ,  $1 \leq i \leq j \leq n$ ) in an array of integers with maximum sum of contiguous elements. For example, if the array elements are: 2, 18, -22, 20, 8, -6, 10 -24, 13, 3, then the returned indices should be  $i=4$  and  $j=7$ .

Submit your project in a single PDF file on courseweb. The file must include: (1) a pseudocode for the algorithm and (2) the results of the program for several tests (your program must be tested by using the test cases provided in courseweb). You should also submit the source code for the program in one separate zip file.

**Points**

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|---|-----|
| Pseudocode                                  | 10  |
| Correct algorithm (handling all test cases) | 60  |
| Source code                                 | 20  |
| Code readability/documentation              | 10  |
| Total:                                      | 100 |