

# Parallel computing and parallel algorithm

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## Homework 2

Due date: 00:00 on April 18th, 2019

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**Note:** You MUST do the homework by yourself. You are permitted to get help ONLY from the TAs and instructors.

### Problem 1:

OpenMP programming:

Using OpenMP to implement the Monte Carlo algorithm.

### Problem 2:

OpenMP programming:

Using OpenMP to implement a quick sorting algorithm with large data volume which contains 1000000 number.

### Problem 3:

OpenMP programming:

Initialize a graph has 1, 024, 000 nodes and the edge count of different nodes ranges from 1 to 10. Implement the PageRank algorithm and run for 100 iterations.

## Submission

### Submit your homework

The program you are to submit is the **.c/.cpp** which should have name like "hw2\_1.c/hw2\_1.cpp". You SHOULD write a report in **pdf** format for your program to briefly describe how to use your program and your idea. Then, put these files in a folder and make a package named "11803391XXXX\_Name\_hw2.zip".

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Submit your compressed file to the FTP website.