ACM-ICPC Texas State University Summer Programming Training Camp

July 5th–July 18th, 2016

Why This Summer Camp?
Since the 1990s, ACM-ICPC has become a world-wide programming contest. Every year more than ten thousand students and more than one thousand universities participate in local contests, preliminary contests and regional contests all over the world. The contest problems are close to real job interview questions, and the contest winners have a high likelihood to receive job and internship offers from top companies.

This summer training camp will use previous ACM-ICPC programming competition problem sets and provide students a unique opportunity of systematic programming training. The whole summer training camp will last two weeks. Each training day will include a three-four hour lecture during the morning. A four-hour mock programming contest, based on the lecture, will be held in the afternoon. Programming contest problems and their analyses and solutions will be used to significantly improve students’ programming skills.

What Are included in This Summer Camp?
➢ Fundamental Programming Skills (simple computing, recursion, backtracking)
➢ Lists (applications of arrays, stacks and queues, sorting, and searching)
➢ Trees (tree traversal, union-find set, applications of binary trees, application of classical trees)
➢ Graphs (graph traversal (BFS, DFS), the minimum spanning tree, the shortest path algorithm, bipartite graphs, network flow)
➢ Greedy Algorithms
➢ Dynamic Programming
➢ Introductory Combinatorics
➢ Computational Geometry
➢ Team skills for ACM-ICPC Competition
➢ Simulation

Benefits
➢ Improve programming skills
➢ Enhance problem solving skills for programming job interviews
➢ Practice on ACM-ICPC Competition
➢ Invite to attend the Texas State Programming Competition in Fall 2016.

Programming Environment
➢ Programming languages allowed: C, C++ and Java.
➢ IDE: Eclipse, Code::Blocks
➢ OS: Ubuntu

Who can Register?
➢ Any student interested in programming and passing the data structure class with a grade of at least C
➢ Must commit 5 days each week (at least 8 hours per day) for two weeks
➢ No Registration Fee

How to Register?
please send email to ICPCSC@cs.txstate.edu with your student ID, email address, and data structure grade.

The Texas State ACM Programming Competition Committee will review the qualifications of all applicants and accept applicants until the camp is full.

How to Practice?
➢ A large variety of practice problems can be found on the Texas State ACM-ICPC web site http://acmicpc.cs.txstate.edu/problems

Important Dates

Registration Due ………………… May 31st, 2016
Summer Camp …………………… July 5th-July 18th, 2016

Contact: Summer Camp Director: Dr. Yijuan Lu (lu@txstate.edu)
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