

The Book Series “Collegiate Programming Contests and Education”

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Since 2012, a book series “Collegiate Programming Contests and Education” has been published. This series has been published in simplified and traditional Chinese and English: the former by respective publishers of mainland China and Taiwan, and the latter, the first book’s translation, by CRC Press.

The goal for the book series is polishing students’ programming skill solving problems in a systematic way.

A large number of programming contests’ problems from all over the world can be gotten, analyzed and solved. These problems can be used not only for programming contest training, but also for education.

The programming knowledge system can be summarized as a famous formula: “Algorithms + Data Structures = Programs”. Strategies solving problems are strategies for data modeling and algorithm design. Three books constitute the book series:

- [1] Data Structure Practice: for Collegiate Programming Contests and Education;
- [2] Algorithm Design Practice: for Collegiate Programming Contests and Education;
- [3] Programming Strategies Solving Problems: for Collegiate Programming Contests and Education.

The outlines for the book series are based on the outlines of data structure and algorithms. Programming contest problems and their analyses and solutions are used as experiments. For each chapter, there is a section “Problems” to let students solve programming contests’ problems, and hints for these problems are also showed.

The book series can be used not only for systematic programming contest training, but also for polishing computer students’ programming skill better, using programming contests’ problems.

Now we improve the book series, and set up International Joint Lab for Programming Technologies (IJLPT) based on the book series.