

CSE 521: Design and Analysis of Algorithms

Catalog Description:

Principles of design of efficient algorithms: recursion, divide and conquer, balancing, dynamic programming, greedy method, data structure selection.

Correctness and analysis of algorithms.

Examples drawn from problems in sorting, searching, manipulation, pattern-matching, graphs, matrices, polynomials, and integers.

My goals

Make sure you know the fundamentals

Introduce you to some of the really exciting
current research topics in algorithms

Have fun

Some of the topics

Linear programming

Randomized algorithms

Approximation algorithms

- Primal dual method
- Semi-definite programming

Online algorithms and competitive analysis

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