Introduction to Computational Thinking and Data Science

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1 Introduction and Optimization Problems

Greedy algorithm
Brute force algorithm: often not practical. way too long time to computing.

2 Optimization Problems

3 Graph-theoretic Models

4 Stochastic Thinking

5 Random Walks

goto:

6 Monte Carlo Simulation

7 Confidence Intervals

8 Sampling and Standard Error

9 Understanding Experimental Data

10 Understanding Experimental Data (cont.)

11 Introduction to Machine Learning

12 Clustering

13 Classification

14 Classification and Statistical Sins

15 Statistical Sins and Wrap Up

References

[1] https://ocw.mit.edu/courses/electrical-engineering-and-computer-science/6-0002-introduction-to-computational-thinking-and-data-science-fall-2016/lecture-videos/index.htm