Comp 5048 考题回忆

第一题 10 分

a. Explain Reingold-Tilford Tidier drawing algorithm. How can it implement linear running time?
b. Explain hv tree algorithm. Analysis it's running time. How can it implement O(nlogn) area.

第二题 15 分

a. Describe each step in Sugiyama Method. What's the aim of each step.
b. Explain Coffman- Graham algorithm.
c. Explain Median method. Analysis the running time and performance of Median method and Barycentre method.

第三题 15 分

a. Explain general idea model of forced-directed graph drawing. (i.e. springs algorithm)
b. Explain Barycentre algorithm in detail.
c. Explain FADE algorithm in detail.
d. Explain how to use springs algorithm to draw Cluster graph.

倒数第二题 20 分

a. Describe 3 methods to visualize Multi-dimensional data
b. Describe 3 methods to visualize temporal/dynamic data
c. Describe 5 methods to visualize big data.

倒数第一题 20 分

a. Explain 5 principles in Gestalt Law.
b. Explain the benefits and problems of Rainbow Ordered Colour. Discuss the alternatives.
c. Explain heuristic evaluation and cognitive walkthroughs
d. Explain observational studies and controlled experiment