

Algorithms Review for Job Interview

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1 12/20/2014, Saturday

- Website (github), program highlight, and chinese input environment all good now;
- Will configure Linux Mint Java environment later, prefer emacs;
- 145/168 done before new season review, begin to work on these questions from today.
- Just got 4 easiest done: **149/168**
 - min stack,
 - excel sheet column title,
 - compare version number, and
 - intersection of two linked list,

2 12/21/2014, Sunday

- Only three got done today: **152/169**
 - maximum gap
 - fraction to recurring decimal
 - majority element
- Don't feel my mind is clear today at all, will look into job searing instead, hopefully tomorrow I can solve more problems, and slightly complicated ones;

3 12/22/2014, Monday

- So far got four done: **156/169**
 - sort list
 - merge k sorted list
 - trapping rain water

- recovery binary search tree
- am going to work on the rest 6 tonight, so that hopefully tomorrow I would be able to work on the new 10 questions;
 - **word ladder II**: spent hours on this one, but got really sick with it! I should have solved my problems gradually, like solve the clone graph to understand graph first before touch this one, but I will get this one done later when I have clear mind.
 - regular expression matching
 - divide two integers
 - clone graph
 - find peak element

4 12/23/2014, Tuesday

- Meet IPO staff this morning got coming semester plans clear at 8:30am in the morning;
- Will most probably meet some friend and have dinner together; changed to be **tomorrow noon**
- Hopefully by this morning's interruption meeting staff, I could change back my regular schedule instead of 5am-13:30 day time sleeping, target for tonight fall asleep before 12:00am; fall asleep from 10:00-15:30, seems I will change my schedule back as expected tonight~!
- Will not work on Algorithms for today, but work on it hard tomorrow. I have my confidence that I can figure them out, and do great job summarize the questions during my Java round, no worries!
- so far Got 2 done: **158/169**
 - find peak element
 - maximal rectangle

5 12/24/2014, Wednesday

- 2:00(3:00am?)-11:00am, expect 2:00-9:00am schedule tonight;
- Don't know why old account doesn't work any more, use new account; from **158/169** to **0/169** using **Java**
- Worked on the following questions: **1/169**
 - divide two integers, just got the Java environment ready
 - regular expression matching: **working on it!**, require understanding and summarizing
 - 知道猪是怎么死的吗？笨死了 ~ ~

6 12/25/2014, Thursday

- List a detailed plan of working on the algorithms; **Question Tags** according to the Website:

Tags	Counts	
Heap	1	Merge k Sorted Lists
Graph	1	Clone Graph
Data Structure	3	
Bit Manipulation	4	
Divide and Conquer	4	
Greedy	6	
Sort	6	
Breadth-first Search	7 (32)	
Stack	11	
Binary Search	13	
Hash Table	16	
Math	17	
Linked List	19	
Depth-first Search	19	
Backtracking	21	
Two Pointers	22	
Dynamic Programming	23	
Tree	26	
String	38	
Array	56	

• Detailed Questions:

Tags	Counts	#	Title	Acceptance	Difficulty	Notes
Heap	1	23	Merge k Sorted Lists	21.0%	Hard	
Graph	1	133	Clone Graph	23.3%	Medium	
Data Structure	3	170	Two Sum III - Data structure design	19.2%	Easy	
		155	Min Stack	14.6%	Easy	
		146	LRU Cache	14.3%	Hard	
Bit Manipulation	4	78	Subsets	27.9%	Medium	
		136	Single Number	46.0%	Medium	
		137	Single Number II	34.0%	Medium	
		169	Majority Element	31.6%	Easy	
Divide and Conquer	4	23	Merge k Sorted Lists	21.0%	Hard	
		4	Median of Two Sorted Arrays	17.6%	Hard	
		53	Maximum Subarray	34.2%	Medium	
		169	Majority Element	31.7%	Easy	
Greedy	6	44	Wildcard Matching	14.6%	Hard	
		55	Jump Game	27.2%	Medium	
		45	Jump Game II	24.6%	Hard	
		134	Gas Station	26.0%	Medium	
		135	Candy	19.5%	Hard	
		122	Best Time to Buy and Sell Stock II	37.0%	Medium	
Sort	6	148	Sort List	20.9%	Medium	
		75	Sort Colors	32.3%	Medium	
		56	Merge Intervals	21.2%	Hard	
		164	Maximum Gap	23.1%	Hard	
		147	Insertion Sort List	25.5%	Medium	
		57	Insert Interval	20.7%	Hard	
Breadth-first Search	7 (32)	127	Word Ladder	18.4%	Medium	
		126	Word Ladder II	11.8%	Hard	
		130	Surrounded Regions	14.3%	Medium	
		133	Clone Graph	23.3%	Medium	
		103	Binary Tree Zigzag Level Order Traversal	26.5%	Medium	
		102	Binary Tree Level Order Traversal	29.9%	Easy	
		107	Binary Tree Level Order Traversal II	30.4%	Easy	