

Microsoft Software Engineer Interview Questions

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- Traverse a binary tree using recursion.
- How will you find the height of a binary tree? Write a function to find the height.
- Explain how you will reverse a singly linked list.
- You have two intersecting linked lists. Describe a function that returns a pointer to the node where they intersect.
- Find the first 1 entry in an array of binary numbers.
- Design a function to merge a list of contacts between various clients updating a web service.
- Create an algorithm to place a series of randomized ships onto a battleship (game) -esque grid system.
- Create an algorithm to determine whether pixels surrounding a grid spot in a game of life environment are turned on.
- Write the shunting yard algorithm without a stack.
- How would you design a fridge for blind?
- How would you do an in order traverse of a tree without recursion.
- Divide two numbers without using / or % and return quotient.
- Are two words palindrome of each other?
- Given a list of numbers, sort them and remove the duplicate numbers.
- You have two substrings of a string that overlap. How would you put them together into one string?
- Write an atoi function.
- Given two sorted arrays, combine the two arrays in order without using a sort algorithms after the merge?

- Remove duplicates from a linked list.
- Given a string of digits like "46278" and int n, delete n characters from the string such that the resultant string contains minimal number representation, you must preserve relative position of digits. Example: if the string = "72388" and n=2, the output should be 238.
- Write an algorithm to parse string for algebraic operations and solve with respect to order.
- Remove duplicates from a string.