ISSUE #2

CODECHEF-VIT NEWSLETTER

COMPETITIVE EDGE

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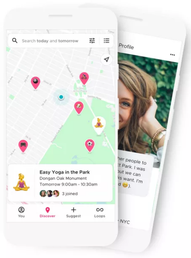
TOP NEWS IN TECH



Google takes another run at social networking with Shoelace

The app is currently in an invite-only test in NYC

Google's in-house incubator, Area 120, is working on a new social networking app called Shoelace which is aimed at organizing local events and activities. You use it by listing your interests in the app, allowing it to recommend a series of "hand-picked" local activities which it calls "Loops." You can also organize your own events, and there's a map interface to view and RSVP to other people's Loops.

Shoelace's soft-launch comes just months after Google shut down Google+, its most prominent attempt at building a social media platform. However, rather than trying to create a new all-encompassing social network to rival the likes of Facebook, Shoelace seems to have much more modest ambitions that take aim at Facebook's ubiquitous Events functionality.

Shoelace is currently in an invite-only testing phase on iOS and Android, but you can fill out this form if you'd like to get involved. You need to have a Google account to sign in. Unfortunately it's also only available in New York City at the moment; the team says it's hoping to expand to more cities across the US soon. There's no word on when this might happen, but a similarly NYC-centric Area 120 app, Pigeon, is yet to expand outside of the city more than a year after its initial launch.

INTERVIEW Q & A

Q. Is it possible to find a loop in Linked list ?

It is possible at O(n)

Have two pointers say P1 and P2 pointing to the first node of the list.

Start a loop and Increment P1 once and P2 twice in each iteration. At any point of time if P1==P2 then there is a loop in that linked list. If P2 reaches NULL (end of linked list) then no loop exists.

Q. In a given array, find the longest subsequence such that adjacent elements differ by one.

Eg: Input : arr[] = {1, 2, 3 ,2 ,3 ,7, 2, 1}
Output : 7

**Longest consecutive sequence is "1, 2, 3, 2, 3, 2, 1" in the above array.

We will solve the problem by using the concept of the Longest Increasing Subsequence with dynamic programming.

The pseudocode is as follows:-

- Create a function to find the length of the longest subsequence.
- Initialize the dp[ ] array with 1 as a single element will be of length 1.
- int dp[n]
- Make all the elements of dp as 1.
  for (int i = 0; i< n; i++)
  dp[i] = 1;
- Initialize int i and make loop till n(length of the array)
- Start traversing the given array
- Compare with all the previous elements
- If the element is consecutive then consider this subsequence and update dp[i] if required.
- The longest length will be the maximum value of dp array.
  int result = 1;
- Get the maximum value of dp array.
  for (int i = 0 ; i < n ; i++)
  if (result < dp[i])
  result = dp[i];
- Return the max value of the function.
  return result;

> Technology is just a tool. In terms of getting the kids working together and motivating them, the teacher is the most important.
>
> **- Bill Gates**

#What's Trending

Top 10 Tech Skills in Demand in 2019

1. Machine Learning
2. Mobile app Dev
3. SEO/SEM Marketing
4. Data Visualization
5. Data Engineering
6. UI/ UX Design
7. Cyber Security
8. Cloud computing/AWS
9. Blockchain
10. IoT

Top tech websites and Blogs

1. TechCrunch.com
2. TheNextWeb.com
3. Wired.com
4. Tech2.com
5. Gizmodo.com

BLOG RECAP: Articles from our members

A DRIVERLESS FUTURE

Rajat Sablok
Core Committee member

Self-driving cars, like any other piece of tech, were first seen in sci-fi movies. They soon gained attention and many tech giants started working on them. Elon Musk, the face of Tesla, claims to have fully automated cars by the end of 2020. But how far are we from a driverless future?

Prepare to be disappointed. No denying that we have come a long way in the field of self-driving cars— with companies like Waymo launching driverless taxis, Tesla launching autonomous abilities in their cars like lane changing— however, completely automated cars by the next year is just too good to be true.

The problem with full automation is not technical, the technology here is brilliant and is only going to get better with time. The problem is philosophical and societal values. Take the 'trolley problem' for example. It is a very famous thought experiment where taking no action might lead to death of certain people, and taking an action might lead to the death of several other people.

Now, if you were given a choice, you would go for the way which kills a smaller number of people. Now, think of a situation where you are in a driverless taxi and in front of your vehicle are a few kids playing a game on their mobile phones. The car will now have to make a decision— take a left and get right into the oncoming traffic, which will probably kill you, or go straight ahead and kill a bunch of children. If you were driving, probably your basic human instincts would jump in and you might sacrifice yourself to save the kids, but the car will do the opposite— run over the children and probably kill them and save you because no car company will ever sell a car which cannot ensure your safety.

Now such a model will not be accepted by most countries. The problem? Philosophical. What AI lacks is randomness and basic human instincts. Unless we can ensure and provide the AI with those instincts, fully automated cars are not picking you from your place.

Resources to help you out

This month's domain:
Python Programming

Python Libraries for Data Science

1. Pandas
2. NumPy
3. SciPy
4. Matplotlib
5. NLTK
6. Tensorflow

Top Python IDEs

1. PyCharm
2. VSCode
3. PyDev
4. PyScripter

Did you Know ?

When Snapchat launched in 2011, it was named Picaboo, but in 2012, it was renamed to Snapchat.

INTERPERSONAL SKILLS DEFINED

Topic : Leadership

How to guarantee strong performace under pressure?

Visualize the destination

Take a moment to visualize the calm after the storm: the work is done and done well, and you're celebrating with your team.
Positive visualization can alleviate pressure and help you relax and stay focused, reminding you that even the most intense situations eventually resolve.

Motivate yourself with a reward

People who know their hard work will be tangibly rewarded tend to perform better than those who don't.
Whether it's a vacation, something you've been wanting to buy, or dinner at your favorite restaurant, pick a reward that will keep you going and pretend it's already yours.

Focus on your actions

Craft a routine or system fo r getting the work done. Focus on your daily actions and carry out your plan with discipline and determination.
A routine can help prevent panic and distraction, allowing you to focus on the task at hand.

Busy vs. Productive

Most of us think we're accomplishing something as long as we're busy doing things, but that's not necessarily the truth. It's a matter of doing the things that help us accomplish our goals.
Look at the things you'r e doing and delegate or eliminate all the unnecessary activities that are taking up your time and interfering with your success.

Take control where you can

When you focus on the things you can't control, the pressure—and your anxiety—are intensified. Focus on the things you can control and let the rest take care of itself.