EXPLORE THE WORLD

Anjitha P[1], Magniya Davis[2]

[1]*St. Joseph's College (Autonomous), Irinjalakuda, Thrissur, Kerala*
[2]*Professor, St. Joseph's College (Autonomous), Irinjalakuda, Thrissur, Kerala*

---***---

Abstract - *The system is intended to trip planning and to discover travel experience from shared data in location based social networks. The Location Based social networks allow users to perform check-in and share their check-in data with friends. When a user is travelling the main check-in data are travel roots and photos and tag information. Such records create a massive data set and the system uses such data to finding the root. The roots are recommended based on some interested keywords. The keywords are provided by the system. The system also includes Named Entity Recognition (NER) which helps in information extraction from unstructured text into a predefined category such as person name, place, location, organization…*

***Key Words*: location based social network, NER**

1. INTRODUCTION

The users can check- in information in a Location Based Social Network (LBSN), the check-in data may be some routes, photos and information about a place they visited. The check-in records create a massive information and it helps to share data with another users. Here we introduce a Keyword-aware Representative Travel Route (KRTR) framework which help to find route based on the interest of users. The keywords are known as place of interest, which is extracted from check in information. The interested keywords can be selected and the system display the distance so the user can easily select them. The paper also say about Name Entity Recognition (NER) system which help to differentiate between names, places, and so on. NER is added by linking to Wikipedia. The NER system helps to categories words in a paragraph so a man who is not aware about correct keyword to type also can use the system. We can explain the use of keyword by an example. If a user want to travel from St John's Ln, London to Whitehall, London and he want to visit colleges between the two. He can select the keyword professional, the routes are displayed with distances. He can also explore the route. The NER help to identify person name, organization, locations, medical code, time expression, quantities from an unstructured text. The system inputs are the starting place, the target place .the user can select the keywords and can denote the maximum distance he can travel to reach the keyword between these two places. Denote the maximum distance he can travel to reach the keyword between these two places

1.1 Definition 1 (Travel route).

Given a set of check-in points derived from a set of travel routes, each check-in point represents a POI p and the user's checked-in time t. The check-in records are grouped by every individual users and ordered by the creation time of each check-in time. Each user could have a list of travel routes {T} = {T1, T2,} where T0 = {(p0, t0), (p1, t1) . . . ; T1= {(pi+1, ti+1) ….} is greater than a route-split threshold. We set the route-split threshold to one.

This paper builds up on and significantly improves the KSTR framework of recommending a diverse set of travel routes based on several score features mined from social media. KSTR then constructs travel routes from different route segments. Specifically, we extend KSTR to consider representative and approximate routes. Additionally, resources including passive check-ins such as GPS-tagged photos. This addition would enable KRTR to consider a larger input including active and passive check-ins with high efficiency and scalability. Day in this paper maintaining the Integrity of the Specifications.

2. PATTERN DISCOVERY

Here we describes an process of pattern discovery

From checked-in histories, which includes

(1) The scoring mechanism for keywords and Place of interests (POI);

(2) A review of feature the scoring methods which quantify the accuracy of the routes;

2.1 Keyword Extraction

Here we explains how to identify t the semantic

Meaning of the keywords and propose a matched score to

Describe the degree of connection between keywords and

Check-in data. The keyword extraction module first of all identifies the spatial, temporal and attribute scores for every keyword W in the user input. At query time, each query keyword will be matched to the pre-computed keyword.

2.1.1 Geo-Specific Keywords

- Some keywords are based on location which are known as Geo specific keywords.
- The Geo specific keywords are based on nature which is identified by the system.

2.1.2 Temporal Keywords

- Some check-in data are based on time which is recognized.
- If the tag contain sunrise it tells that it is morning. And the route is to a beach to view the sunrise.

2.1.3 Attribute Keywords

- The attribute keyword are based on check-in points or Place Of interests.
- Using this POI-driven knowledge, our scoring conveys the POI semantic information in both TF and IDF.

3. Feature Scoring Methods

With a set of travel route records which the users checked-in, feature scoring should be used to find proper route recommendations. In this paper, we also explore three travel factors: "Where: people tend to visit popular places and POIs", "When: each POI has its own proper visiting time", and "Who: people might follow social-connected friends and persons'. To achieve the "Where from, When to, from Who"

Consider the issue of user demands, the pattern discovery and scoring module defines the ranking mechanism for each person's POI with global attractiveness, proper visiting time.

4. Candidate Route Generation

In the above sections, we have proposed the methods for Matching raw texts to POI of users and finding preference Patterns in existing travel routes. However, the route dataset. Sometimes may not include all the query criteria and routes, and must have bad connections to the query keywords. Thus, we introduce the Candidate Route Generation algorithm in this paper to combine various routes to increase the amount and diversity. The new candidate routes are constructed by combining the Existing datasets. Here we tells the preprocessing method first. We then use this pre-processing results to accelerate the proposed route reconstruction algorithm. Last, we design a Depth-first search-based procedure to generate possible routes for the user.

The candidate route generation algorithm is used to create a new combination of route from the given dataset of routes. The efficiency of system can be increased by adding candidate route generation algoritm.The paper describes how the algorithm works.

Algorithm:

Input: Raw trajectory set T;

Output: New candidate trajectory set Tc.

1: Initialize a stack S;

2: Split each route r 2 T into (head, tail) subsequences;

3: Reconstruct (headset).

4: Procedure Reconstruct (Set):

5: for each (head, tail) 2 Set do

6: end Flag = False;

7: if S is empty or tail. Time > S.pop ().time then

8: Push head in S;

9: Push tail in S;

10: else

11: Push head in S;

12: end Flag = True;

13: if end Flag is False then

14: Reconstruct (tailSet)

15: Insert S in Tc;

16: Procedure End

5. TRAVEL ROUTES EXPLORATION

With the featured checked-in dataset, our final goal is to recommend a set of travel routes that connect to all or partial User-specific keywords. We first explain how the matching function to the process the user query. Next, we introduce the background of why we apply a skyline query, which is suitable for the travel route recommendation applications, and present the algorithm of the distance-based representative skyline Search to the online route recommendation system. Thereafter, an approximate algorithm is required to speed up the real-time Skyline query to find the route. The Travel Route Exploration procedure is presented below as Algorithm2.

Algorithm 2

Input: User u, query range Q, a set of keywords K;

Output: Keyword-aware travel routes with diversity in

Goodness domains KRT.

1: Initialize priority queue CR, KRT;

2: Scan the database once to find all candidate routes covered

By region Q;

/* Fetch POI scores and check keyword matching

3: foreach route r found do

4: r.kmatch 0;

5: foreach POI p 2 r do

6: r.kmatch + KM (p, k);

7: if r.kmatch _ _ then

8: Push r into CR;

/* Initialize an arbitrary skyline route, see Section 4.3

9: CR.r0 route r with the largest value of an arbitrary dimension;

/* Greedy algorithm for representative skyline, see Algorithm 3 */

10: KRT I-greedy (CR);

11: return KRT.

6. Representative Skyline Travel Routes Search

Here given a specific query, we have already retrieved a set of travel routes, e.g., attractiveness, time, and geographical social influence to fulfill the user's requirements. To recommend a subset of diverse travel routes, proposed a KSTR algorithm applying the skyline search. A skyline search returns the subset of data in a data set which is not dominated by any others. Let a and b be data points, where a dominates b if a is as good as or better than b in all dimensions and better in at least one dimension. Instead of using a traditional top-k recommendation System considering a fixed weighting for a set of criteria, Skyline query considers all possible weighting criteria that Might offer an optimal result, which stands out among Others and is of special interest to users. In other words, the Results of the skyline travel route are not dominated by any other routes so the user need not specify the weight between every criteria first because travel route skyline returns all the possible optimal results w.r.t. arbitrary weight. In this system, a user can choose the travel route considering different weights in three dimensions: (i) how attractive this trajectory is, (ii) the proper visiting time of each POI in the travel sequence, and (iii) the social influence of the users who have visited the POI. Each trajectory is regarded as a three-dimensional data point, and each dimension corresponds to one score. However, considering the skyline search may return too many results that are not readable to users, a limitation of a maximum number (an optional k value) of the returned travel routes is required. In the following, we review the existing definition of the distance based representative skyline, and explain its application over the output of travel routes recommendation

7. CONCLUSION

In this paper, we tells and study the travel route recommendation Problem based on some criteria. We have developed a KRTR framework to suggest travel routes with a specific range and a set of user preference keywords which are known as Place Of interest. These travel routes are related to all or partial user preference keywords, and are recommended based On (i) the selected keyword which is a, POI (ii) visiting the POIs at their corresponding proper times settings, and (iii) The routes generated by corresponding users. We propose a keyword extraction module to identify the semantic Meaning and match the measurement of routes, and have designed a route reconstruction algorithm to aggregate Route segments into travel routes in accordance with query Range and time period. We leverage score functions for the three aforementioned features and adapt the representative Skyline search instead of the traditional top-k recommendation System. The experiment results demonstrate that KRTR is able to retrieve travel routes that are interesting for users, and outperforms the baseline algorithms in terms of effectiveness and efficiency. Due to the real-time requirements for online systems, we aim to reduce the computation cost by recording repeated queries and to learn the approximate. The NER system help to differentiate the different keywords.

8. References

1) Yu-Ting Wen, Jinyoung Yeo, Wen-Chih Peng, Member, IEEE, and Seung-Won Hwangl. Efficient keyword aware travel route recommendation.

2) Z. Chen, H. T. Shen, X. Zhou, Y. Zheng, and X. Xie, "Searching trajectories by locations: An efficiency study," in Proc. ACM SIGMOD

3) H.-P. Hsieh and C.-T. Li, "Mining and planning time-aware routes from check-in data," in Proc. 23rd ACM Int. Conf. Conf. Inf. Knowl. Manage., 2014, pp. 481–490.

4) V. S. Tseng, E. H.-C. Lu, and C.-H. Huang, "Mining temporal mobile sequential patterns in location-based service environments," in Proc. Int. Conf. Parallel Distrib. Syst., 2007, pp. 1–8.

5) W. T. Hsu, Y. T. Wen, L. Y. Wei, and W. C. Peng, "Skyline travel routes: Exploring skyline for trip planning," in Proc. IEEE 15th Int. Conf. Mobile Data Manage., 2014, pp. 31–36.