

# Travel Planner Using Keyword Extraction and Geo-Tagging

**R Muthu Kumara Guru**

Department of Computing Science  
Hindustan University  
Chennai, India  
[vvizz617@gmail.com](mailto:vvizz617@gmail.com)

**Prashi Sachan P**

Department of Computing Sciences  
Hindustan University  
Chennai, India  
[prashi15297@gmail.com](mailto:prashi15297@gmail.com)

**Namrata Krishnan**

Department of Computing Science  
Hindustan University  
Chennai, India  
[namratakrishnan21@gmail.com](mailto:namratakrishnan21@gmail.com)

**Dr T Sudalaimuthu**

Department of Computing Sciences  
Hindustan University  
Chennai, India  
[sudalaimuthu@gmail.com](mailto:sudalaimuthu@gmail.com)

**Abstract**—The recent past revealed a greater interest in recommender methods. Nowadays there are several travel bundles existing from different sites to almost all the areas over the world. A consumer locates it very hard to look for the most effective plan as he/she needs to surf several internet sites, get in touch with numerous travel representatives and etc. which is a laborious process and also is time consuming. There needs to be a system where the user should.

discover the most effective bundle on the Internet with a single click. To resolve this problem, we embrace Traveling Plan Recommendation System which provides the most effective package among all the various other packages that are on the web. This job will assist visitor to suggest the very best Travel Plan amongst all the set on the internet. On numerous demands of traveller that is, a client will pick a travel plan for a particular area based upon the recommendations offered by the previous customers who had experience with the bundle. Consequently, according to the customized suggestions, he/she will pick the very best plan that gets on the internet. To satisfy the demand for an automated trip arrangement, we insist that even more qualities of POIs require to be drawn out. As a result, in this paper, we recommend an effective Key words framework that uses understanding elimination from consumers' historic mobility device documents and likewise social interactions. To evaluate the effectiveness as well as performance of the algorithm that has been proposed, it actually conducts considerable experiment on actual location-based social media datasets, as well as the result from the experiment shows that our approaches do certainly reveal great efficiency than advanced works.

**Keywords**—Geo-Tagging social network, text mining, travel route recommendation

## I. INTRODUCTION

II. Social Media based planner is the most popular method, and also is commonly used in products, solutions and travel referrals. Area based collective filtering system travel recommendation approaches very first mine Places Of Interests in a place which has been seen by social customers using geo-tagging or GPS trajectories. After that comparable users are identified by computing the location co-occurrences from users' traveling history and also experience using evaluation or keyword phrases. Then comparable individuals are found by calculating the location coexist from individuals' traveling background. Ultimately, the POIs of a different city are advised as claimed by similar individuals' visiting history. The primary goal of this task is to give Traveling Course suggestion for enthusiastic tourists utilizing community added images with Geotagging, people characteristics and textual information like search phrase and also picture descriptions of photos available in Social Networking Sites.

## II. RELATED WORK

Social Media -based referral techniques work as well as reliable but experience the widely known "time complexity trouble and expense contentment" in suggestion systems, due to travel information being really thin. In this condition, it makes exact comparable customer recognition really difficult if the customer has actually only seen a smaller number of POIs.

The category subjects are generally figured out by the naive category information from recommended systems. From the predetermined groups, it is convenient to compute individual choices. Regrettably, for huge image sharing networks like Twitter and Flickr, there is no such defined group

details. Hence, the ignorant topic-based suggestion method cannot be used directly in travel recommendations.

#### A. Problem Definition

- Static Travel Plans are Time consuming
- Not supports personalized POI Recommendations for travel routes
- Category Information is undefined in routes
- Static Datasets for POI

### III. PROPOSED TRAVEL PLAN

We recommend an itinerary suggestion for customer to go to a new place. In comparison to existing location based collective filtering techniques, we discover customers' traveling choices from the text summaries with keyword phrase connected with their shared pictures on social media sites, instead of from GPS trajectories or check-in documents. On top of that, customers' resemblances are measured with writer subject model rather than location co-occurrence. In the system we extract the past experience of the customer's keyword-based removal.

Places are classified based on the geotag information, Number of Persons on the photo and can be later used with POI recommendation. In the travel planner system, we utilize users' topic choices as the law for collaborative filtering rather than location co-occurrences. Dynamic travel plans are recommended to the user based on POI.

#### A. Advantages:

- Dynamic travel plans with sequence route based on users POI.
- Time complexity can be reduced by visiting places based on user's interest.
- Travel Route navigation helps in precise route for users.

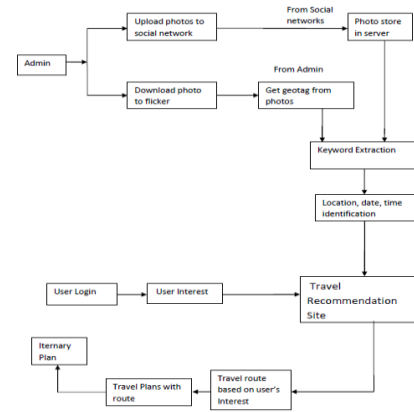


Fig. 1. Architecture Diagram of Travel Route

### IV. SYSTEM REQUIREMENTS

#### A. User Interfaces

- All the contents in the task are implemented making use of Graphical User Interface (GUI) in Java with JavaFX principles.
- Every conceptual component of the jobs is reflected making use of the JavaFX.
- System gets the input as well as supplies through the GUI based.

#### B. Hardware Interfaces

- 1) **Ethernet:** Ethernet on the AS/400 supports TCP/IP, Advanced Peer-to-Peer Networking (APPN) and advanced program-to-program communications (APPC).
- 2) **ISDN:** You can connect your AS/400 to an Integrated Services Digital Network (ISDN) for faster, more accurate data transmission. An ISDN is a public or private digital communications network that can support data, fax, image, and other services over the same physical interface. Also, you can use other protocols on ISDN, such as IDLC and X.25.

#### C. Software Interfaces

This software is interacted with the TCP/IP protocol, Socket and listening on unused ports. Server Socket and listening on unused ports and JDK 1.6

#### D. Communications Interfaces

- TCP/IP protocol.
- LAN settings

### V. SYSTEM MODULES

#### A. Social Networking Website

In first module we are creating a social networking profile that is specifically concentrated on

users' pictures. User will register their details and server stores user information in a database. Users will upload their pictures into the social networking VII. site. While uploading, user provides tags for the picture, Geotagging information and access privilege. User share photos in Social Networking Website.



Fig. 2. Social Site Login

#### B. Data Collection and Processing

In second module, Admin collects photos by giving tags from Flickr Website. Admin download public photos from this website. Now Pre-processing will be done. Geotagging will be applied to all downloaded public photos. Geotagging applied using Flickr API. User can view their drive where all uploaded pictures by the user listed in this drive.

#### C. Travel Recommendation Website

We are creating a Travel Recommendation Website for recommending locations to the user. Admin will get permission from Social Website to access public photos. After permission granted by the Social Website, Admin will perform pre-processing to the public photos with tags and keyword extraction. In this module extract the keyword to get the specific places in experience. During pre-processing stage: location, date and time and tags of photos will be retrieved. These photos information is stored into database.

#### D. Personalized Itinerary Plan

In this module, we will recommend travel destinations for the user based on user input. User specifies their Point of Interest and requirements for getting Travel Recommendations. User input will be current location, place to visit, duration, type and purpose of visit and budget cost. Based on user personalized POI, Server generate a personalized travel plan.

## VI. RESULTS

These traveling routes belong to all or partial customer choice keywords and also are suggested based upon the good looks of the POIs it passes, seeing the POIs at their corresponding correct arrival times, and the courses generated by significant individuals. The experiment results demonstrate that Key words Referral Traveling Route is able to fetch travel courses that are interesting for users as well as outperforms the standard formulas in regard to efficiency as well as performance.

## VII. CONCLUSION AND FUTURE WORK

They shall customize trip recommendations sustained each family member customer passion and also see durations. Like earlier work on Twitter, they initial confirm individual rate of interest throughout a specific class, about his/her passions in alternate classes. After that, they modify tours by user's interests as well as visit period sustained the level of individual interest. An additional future direction is to support excursions sustained whether an individual is traveling alone or a part of a much larger cluster (e.g., some or household). As every participant of the cluster can have their very own distinctive preferences, one of the most difficulty is in relating the specific preferences for such collection scenic tours. As itinerary square action conditional owing to various conditions (e.g., human tiredness, traffic congestion), one more threat for future work is to develop vibrant excursion suggestion formulas that take into account these vibrant contexts throughout the program of a pre-planned tour.

## VIII. REFERENCES

- [1] Z. Chen, H. T. Shen, X. Zhou, Y. Zheng, and X. Xie, "Searching trajectories by locations: An efficiency study," in Proc. ACM SIGMOD Int. Conf. Manage. Data, 2010, pp. 255–266.
- [2] 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.
- [3] 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.
- [4] 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.

- [5] Y. Zheng, L. Zhang, X. Xie, and W.-Y. Ma, "Mining interesting locations and travel sequences from GPS trajectories," in Proc. 18th Int. Conf. World Wide Web, 2009, pp. 791–800.
- [6] Q. Yuan, G. Cong, and A. Sun, "Graph-based point-of-interest recommendation with geographical and temporal influences," in Proc. 23rd ACM Int. Conf. Conf. Inf. Knowl. Manage., 2014, pp. 659–668.
- [7] M. Ye, P. Yin, W.-C. Lee, and D.-L. Lee, "Exploiting geographical influence for collaborative point-of-interest recommendation," in Proc. 34th Int. ACM SIGIR Conf. Res. Develop. Inf. Retrieval, 2011, pp. 325–334.
- [8] Y.-T. Wen, P.-R. Lei, W.-C. Peng, and X.-F. Zhou, "Exploring social influence on location-based social networks," in Proc. IEEE Int. Conf. Data Mining, 2014, pp. 1043–1048.
- [9] Y.-T. Wen, K.-J. Cho, W.-C. Peng, J. Yeo, and S.-W. Hwang, "KSTR: Keyword-aware skyline travel route recommendation," in Proc. IEEE Int. Conf. Data Mining, 2015, pp. 449–458.
- [10] H. Gao, J. Tang, and H. Liu, "Exploring social-historical ties on location-based social networks," in Proc. 6th Int. AAAI Conf. Weblogs Social Media, 2012, pp. 114–121.
- [11] T. Lee, Z. Wang, H. Wang, and S.-W. Hwang, "Attribute extraction and scoring: A probabilistic approach," in Proc. IEEE 29th Int. Conf. Data Eng., 2013, pp. 194–205.
- [12] X.-J. Wang, Z. Xu, L. Zhang, C. Liu, and Y. Rui, "Towards indexing representative images on the web," in Proc. 20th ACM Int. Conf. Multimedia, 2012, pp. 1229–1238. [15] T. Cheng, H. W. Lauw, and S. Paparizos, "Entity synonyms for structured web search," IEEE Trans. Knowl. Data Eng., vol. 24, no. 10, pp. 1862–1875, Oct. 2012.