PittCult Restaurant Recommender

INFSCI 2950: Independent Study: Systems

By Peter Brusilovsky

Project Documentation by Nimisha Shukla

1. Motivation

The main motivation for this work was gained during my previous course of adaptive web system's lectures by Dr. Peter Brusilovsky. This project is an effort to integrate the feature of refining the search for restaurant on the basis of cuisine and Google users rating closest to the event location selected by the user. With this work we hope that it will help the users of PittCult in searching a restaurant according to cuisine and Google users rating nearest to the event location, the users are planning to go to.

2. Requirements and Goals

Upon discussing with Dr. Brusilovsky, the system was thought to be designed with the perspective of a user who is going to attend an event. If we think in terms of real life situation when we go to an event we also might want to go for dinner or a coffee a snack or something and wouldn't it be nice to have a system which can help us in not only locating a restaurant close to the event location but also we can search according to our preference of cuisine and user rating.

3. Feature Additions

In the previous version of the application the system was listing all kinds of restaurants(casual, formal, bar) sorted by distance from the location of the event. This was not fitting for a user going to a cultural event. The new features that are added refine the search results by cuisine like Indian, Chinese, American, Italian etc. It also refines the result by Google users rating. A combination of both features caters all the different demands of the users. We also added a search control at the end which ill let the uer refine the search according to his own criteria by typing relevant keyword, if users cannot find their cuisine.

Step 1: Log-in PittCult event recommender system http://pittcult.sis.pitt.edu/.

Step 2: Select the event you decide to attend. Upon selecting the event you are directed to this event. In our case we selected for example "Documenting our past…", on the top of the page we could locate the link to the closest restaurant near to the location(here for example is Carnegie Museum of Art). Click on the link "Restaurants around here".

UNIVERSITY OF PITTSBURGH SCHOOL OF INFORMATION SCIENCES

PITTCULT

| home | recommendation | post event | **settings** | logout | help |

Similar Events by:

Type
  Exhibitions (15)

Venue
  Carnegie Museum of Art (1)

Organization
  Carnegie Museum of Art (1)

Friends who are scheduled this event
None

Others who are scheduled this event
peterb

Review Ratings from Friends
None

Review Ratings from Others
None

Documenting Our Past: The Teenie Harris Archive Project, Part Three

| Schedule this event | ✔ Send to friends or Group | Create my review | Restaurants around here |

- **Type:** Exhibitions
- **Venue:** Carnegie Museum of Art [map]
- **Organization:** Carnegie Museum of Art [website]
- **Date/Time:**
  08-11-2009 ~ 08-11-2009
- **Posted by:** danielle

Forum Gallery

In honor of the 101st birthday of the great chronicler of African American life in Pittsburgh, this exhibition pairs classic photographs by Charles "Teenie" Harris with prize-winning snapshots by children living in Pittsburgh neighborhoods today. Following in the footsteps of the legendary Teenie Harris, these local children have photographed the meaningful people, places, and things in their lives. In keeping with the theme of a child's vision of Pittsburgh, the Teenie Harris images are selected by his son Charles A. Harris, including scenes of his own childhood. The children's work is sponsored by the Housing Authority of the City of Pittsburgh and the citywide "Gathering of Peace" antiviolence initiative.

Vintage prints and negatives in the Teenie Harris Archive were acquired with funds provided by the Heinz Family Fund, the Second Century Acquisition Fund, Milton and Nancy Washington, and by gift of the artist and the Harris Estate. General support for museum programs is provided by the Pennsylvania Council on the Arts, The Heinz Endowments, and Allegheny County Regional Asset District. Cataloging and scanning of the Teenie Harris Archive is supported by a National Endowment for the Humanities grant for Preserving and Creating Access to Humanities Collections. *Any views, findings, conclusions or*

Step 3:

When clicked on "Restaurants around here", we see the list of restaurant sorted according to the distance from the event location with an option of refining the result set according to cuisine and google users rating. The restaurants are also marked on the map. Users can get directions to the restaurant. Additionally, users can search any other cuisine not listed with the help of the search box option.

Refine by Cuisine:
- ☐ American
- ☐ Chinese
- ☑ Indian
- ☐ Italian
- ☐ Mexican

Refine by Google User Rating:
- ◯ 1 Star and Up
- ◯ 2 Star and Up
- ◯ 3 Star and Up
- ⦿ 4 Star and Up

- **India Garden**
  328 Atwood St
  Pittsburgh, PA
  (412) 682-3000
  directions
  clipped from Google - 8/2009

- **Tamarind Savoring India**
  2101 Greentree Rd
  Pittsburgh, PA
  (412) 278-4848
  directions
  clipped from Google - 8/2009

- **Taj Mahal Inc**
  7795 Mcknight Rd
  Pittsburgh, PA
  (421) 364-1760
  directions
  clipped from Google - 8/2009

- **Peoples Restaurant**
  5147 Penn Ave
  Pittsburgh, PA
  (412) 661-3160
  directions
  clipped from Google - 8/2009

- **Warhol Cafe**
  117 Sandusky St
  Pittsburgh, PA
  (412) 237-8310

Option of searching the restaurants of any other cuisine not listed:

Search Other Cuisines

[   ] [Search]

powered by Google™

4

4. Implementation

We used Google Ajax Search APIs, which allows local search around a given location. It also sorts the result by distance. We also used Google map APIs to create pointers on the map. Google Map APIs allowed embedding Google Maps in our web page. We have used Google Form (GForm) to embed an edit control box and hooked it with Google Events. This lets user do customize search based on his/her cuisine liking. We have also used javascript to dynamically change the contents of the webpage after asynchronous callbacks from Google APIs. We have done quite a bit of customization for the search control, the map, edit boxes, radio buttons, and checked boxes etc using stylesheet. The webpage is arranged using a custom CSS stylesheet.

5. Conclusion

This system on whole integrates location based restaurant recommendation along with refining the search according to cuisine and rating, for the cultural event recommender PittCult. Since we are using Google Maps API's the Google map is very robust, accurate and the Search API uses Ajax the list is dynamic and loads very fast.

6. Future Work

- Users can personalize the search based on peer recommendations.

- Users can store previous searches, favorite restaurants

- Finding user restaurant preferences based on real time information (for example Tweets from Twitter account)

- User can read/post reviews about a particular restaurant.

- Using collaborative filtering techniques to make the system more personalized.