EasyGo: An Event-based Social Network

- Yinuo Zhang
- Hao Wu
Motivating Examples
Motivating Examples

Social + Tickets on Events
Group Activities

- Social Activity
- Friend Making
- Events & Tickets
- Reduced Fees

Deals

- Group Purchase
- Reduced Price

Half Off at Rok Sushi Kitchen
Rok Sushi Kitchen
Hermosa Beach
$40 $20
Social Events and Tickets

- Events
  - Sports
  - Concerts
  - Theatres
  - Fan Services

- Ticket Services
  - Vivid Seats
  - StubHub
  - Barry's Tickets
Back-end Integration

Event Ontology

Data Cleaning
Data Integration

Websites

StubHub!

VIVIDSEATS

BARRY'S TICKETS
Event Data Extraction

- Crawling
  - Scrapy
  - json output

- Event Fields
  - Name
  - Venue
  - City
  - State
  - Time
  - Link

<table>
<thead>
<tr>
<th>Event</th>
<th>Date and time</th>
<th>Location</th>
<th>Sell</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taylor Swift with Ed Sheeran Tickets</td>
<td>Sat, 05/04/2013, 6:30 p.m. EDT</td>
<td>Ford Field, Detroit, MI</td>
<td>Sell Price: $80.00 USD, 859 tickets left</td>
</tr>
<tr>
<td>Taylor Swift with Ed Sheeran Tickets</td>
<td>Tue, 05/07/2013, 7:00 p.m. EDT</td>
<td>KFC Yum Center, Louisville, KY</td>
<td>Sell Price: $43.00 USD, 1,265 tickets left</td>
</tr>
<tr>
<td>Taylor Swift with Ed Sheeran Tickets</td>
<td>Wed, 05/08/2013, 7:00 p.m. EDT</td>
<td>Nationwide Arena, Columbus, OH</td>
<td>Sell Price: $69.00 USD, 831 tickets left</td>
</tr>
</tbody>
</table>
Rolling Stones Tickets

When Mick Jagger and Keith Richards first formed the Rolling Stones in London in 1962, few could have predicted that over 50 years later, they would still be touring the world as... more

FILTER RESULTS

DATE
EVENT

TUESDAY
May 28, 2013
8:00 PM
Rolling Stones
United Center - Chicago, IL
TICKETS

FRIDAY
May 31, 2013
8:00 PM
Rolling Stones
United Center - Chicago, IL
TICKETS

EVENT
DATE
VENUE
TICKETS

Rolling Stones
May 28, 2013
Tuesday - 8:00 PM
United Center (Stones)
Chicago, IL
View Tickets

Rolling Stones
May 31, 2013
Friday - 8:00 PM
United Center (Stones)
Chicago, IL
View Tickets

50 and Counting: The Rolling Stones
Tickets
Tue, 05/28/2013
8:00 p.m. CDT
United Center
Chicago, IL
Sell
Priced from: $157.00 USD
607 tickets left
See tickets

Stones Fest LA - A Night To Celebrate the
Music of the Rolling Stones Tickets
Thu, 05/30/2013
8:00 p.m. PDT
Henry Fonda Theatre
Los Angeles, CA
Sell
Priced from: $39.95 USD
12 tickets left
See tickets
Data Integration

- Semantic Model
  - Karma (json -> n3)
  - Virtuoso Server

- Event Integration
  - Spatial and Temporal Based Filter
  - Set Based String Matching (e.g., Generalized Jaccard Similarity) on Name and Venue
Search and Recommendation

- **Search**
  - Keyword Matching
  - Linked Open Data (possible enhancement)

- **Recommendation** [Zhang & Wu, ICEIS’03]
  - Based on Interests
  - Collaborative Filtering
  - Similarity on Latent Topics (LDA)
Front-end Components
- Social Networking
- Event Recommendation
- Event Search
- Google Map Navigation
- Group Ticket Purchasing
A Scenario

**Lakers vs. Heat**
Group and Deals sorted by price

- **Group 1:**
  - 2 tickets on StubHub created by Lucy
  - 1 space available

- **Group 2:**
  - 3 tickets on Barry’sTickets created by Jack
  - 2 spaces available

**Deal 1:**
- 4 tickets on StubHub

Specify one event in search box

Choose one event in recommendation list

Kevin

User Ontology

Event Triple Store

Recommended Events List

User Profile

Facebook
Demo (Search & Recommendation)

**URL:** [http://huanghe.usc.edu/easygo/](http://huanghe.usc.edu/easygo/)

**Welcome to EasyGo!**

Search events by team, artist, event name, location here

`taylor swift`

**Recommendations for You**

Sat, 05/25/2013 6:30 p.m. CDT @Cowboys Stadium, Arlington, TX
[Taylor Swift with Ed Sheeran](http://huanghe.usc.edu/easygo/)

Sun, 08/25/2013 2:00 p.m. PDT @Home Depot Center (LA), Carson, CA
[New York Red Bulls at Chivas USA](http://huanghe.usc.edu/easygo/)

*Recommendations are based on your interests or Facebook profile.*
Demo (Event List & Map)

TAYLOR SWIFT EVENTS

View them in List or in Map

Sat, 05/25/2013 6:30 p.m. CDT @Cowboys Stadium, Arlington, TX
Taylor Swift with Ed Sheeran

Tue, 05/28/2013 7:00 p.m. MST @Jobing.com Arena, Glendale, AZ
Taylor Swift with Ed Sheeran

Wed, 05/29/2013 7:00 p.m. MST @Jobing.com Arena, Glendale, AZ
Taylor Swift with Ed Sheeran

Sat, 06/01/2013 7:00 p.m. MDT @Energy Solutions Arena, Salt Lake City, UT
Taylor Swift with Ed Sheeran

Sun, 06/02/2013 7:00 p.m. MDT @Pepsi Center, Denver, CO
Taylor Swift with Ed Sheeran

Fri, 06/14/2013 6:30 p.m. EDT @Rogers Centre, Toronto, ON
Taylor Swift with Ed Sheeran

Sat, 06/15/2013 6:30 p.m. EDT @Rogers Centre, Toronto, ON
Taylor Swift with Ed Sheeran
## Demo (Group Creation & Joining)

**Taylor Swift with Ed Sheeran**

Sat, 05/25/2013 6:30 p.m. CDT @Cowboys Stadium, Arlington, TX

### Groups

<table>
<thead>
<tr>
<th>Group ID</th>
<th>Deal ID</th>
<th>Price per Tickets</th>
<th>Total Number</th>
<th>Section</th>
<th>Source</th>
<th>Spaces Available</th>
<th>You Save</th>
<th>Creator</th>
<th>Join Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>494997631</td>
<td>73.95</td>
<td>14</td>
<td>STANDING ROOM ONLY</td>
<td>Stubhub</td>
<td>7</td>
<td>9.29</td>
<td>yinuo Zhang731</td>
<td>Join</td>
</tr>
<tr>
<td>25</td>
<td>323802093</td>
<td>77</td>
<td>1</td>
<td>PRIVATE</td>
<td>Barry</td>
<td>0</td>
<td>NA</td>
<td>yinuo Zhang731</td>
<td>Full</td>
</tr>
<tr>
<td>27</td>
<td>339027867</td>
<td>75</td>
<td>2</td>
<td>PRIVATE</td>
<td>Barry</td>
<td>1</td>
<td>5</td>
<td>yinuo Zhang731</td>
<td>Join</td>
</tr>
<tr>
<td>13</td>
<td>495774178</td>
<td>75</td>
<td>4</td>
<td>General Admission</td>
<td>Stubhub</td>
<td>0</td>
<td>NA</td>
<td>yinuo Zhang731</td>
<td>Full</td>
</tr>
<tr>
<td>21</td>
<td>486844530</td>
<td>15883</td>
<td>1</td>
<td>HOF SUITES</td>
<td>Stubhub</td>
<td>0</td>
<td>NA</td>
<td>yinuo Zhang731</td>
<td>Full</td>
</tr>
</tbody>
</table>

### Deals

<table>
<thead>
<tr>
<th>Deal ID</th>
<th>Price per Tickets</th>
<th>Total Number</th>
<th>Section</th>
<th>Source</th>
<th>Create a Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>499536635</td>
<td>40</td>
<td>2</td>
<td>General Admission</td>
<td>Stubhub</td>
<td>Create</td>
</tr>
<tr>
<td>476028778</td>
<td>69</td>
<td>1</td>
<td>TAYLOR SWIFT lot 11 PARKING PASS only</td>
<td>Stubhub</td>
<td>Create</td>
</tr>
<tr>
<td>495774178</td>
<td>70</td>
<td>2</td>
<td>General Admission</td>
<td>Stubhub</td>
<td>Create</td>
</tr>
<tr>
<td>349838162</td>
<td>72</td>
<td>1</td>
<td>PARKING</td>
<td>Barry</td>
<td>Create</td>
</tr>
<tr>
<td>349838151</td>
<td>72</td>
<td>1</td>
<td>LOT04</td>
<td>Barry</td>
<td>Create</td>
</tr>
</tbody>
</table>
Acknowledgement

- Pedro Szekely
- Jose-Luis Ambite
- George Konstantinidis

Thank you & QA