



MAKE YOUR *<META>* MATTER MORE

real-time updating of web site meta data based on relatable trending search terms. Results:

- Enhanced Presentation in Search Results
- Content Promotion

Motivation:

To help websites not only keep their content current and evolving, but to also keep their meta content current and evolving



Reactive SEO

live demo

Use Case

News outlets with varying subjects and content





Reactive SEO

MAKE

Home

About

Enter url to customize meta keywords:

si.com

✓ --timeframe--

last hour

last day

last week

last month

all time

Submit

meta_term	term_trending	count_last_month
-----------	---------------	------------------

sports	College World Series	3039
sportspeople	Abby Wambach	1727
sports	Chicago Blackhawks	1568
sportspeople	LeBron James	1432

meta_term	term_trending	count_last_month
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basketball	Golden State Warriors	1753
basketball	LeBron James	1432

sports

basketball

live demo

<meta name="keywords" content="Sports illustrated, SI, SI.com, sports news, sports scores, sports highlights, sports rumors, nfl, college football, mlb, baseball, college basketball, nba, nhl, soccer, golf, fantasy" />

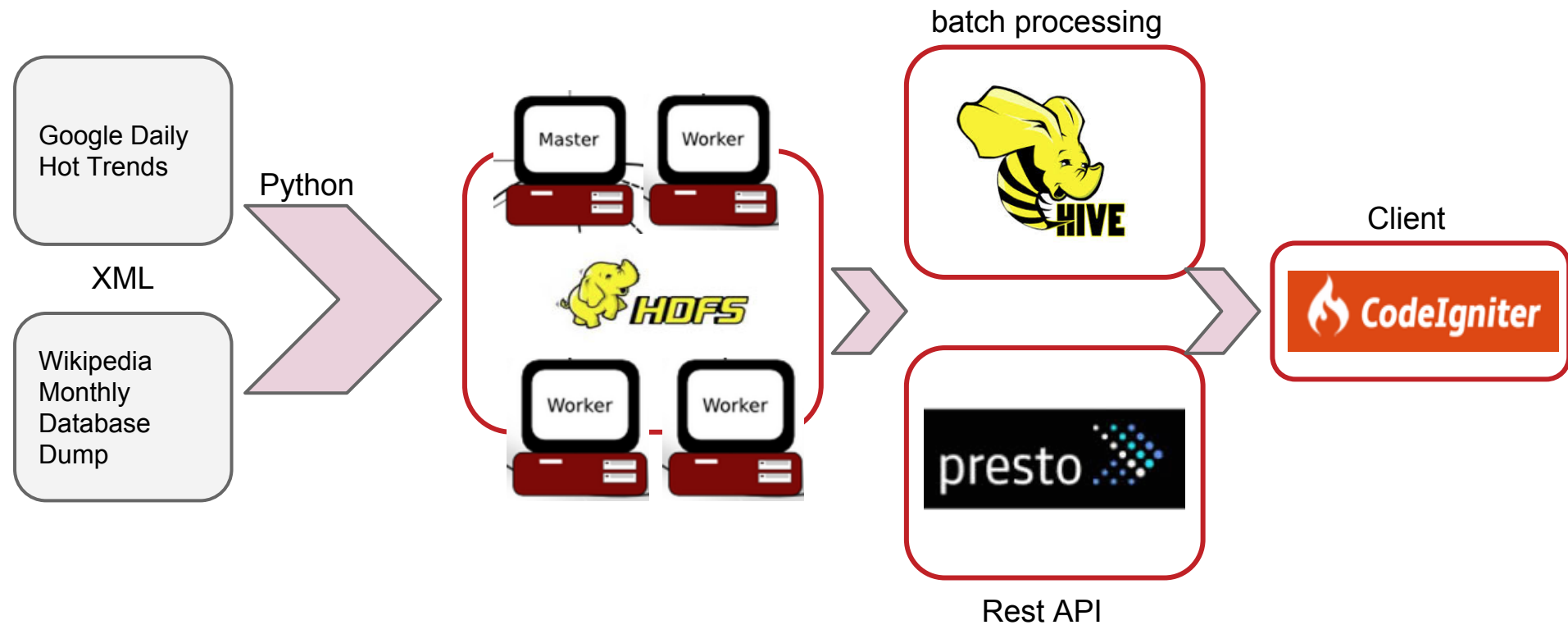
<meta name="keywords" content="Sports illustrated, SI, SI.com, sports news, sports scores, sports highlights, sports rumors, nfl, college football, mlb, baseball, college basketball, nba, nhl, soccer, golf, fantasy, College World Series, Chicago Blackhawks, Golden State Warriors, LeBron James" />



Reactive SEO

Pipeline

live demo



Google Hot Trends XML

```
<item>
  <title>Supreme Court</title>
  <description>SCOTUS, Obamacare, Affordable Care Act, Supreme Court Justices, Supreme Court
  Obamacare, King V Burwell, ACA</description>
  <link>https://www.google.com/trends/hottrends?pn=p1#a=20150625-Supreme+Court</link>
  <pubDate>Thu, 25 Jun 2015 08:00:00 -0700</pubDate>  <ht:picture>//t1.gstatic.com/images?q=tbn:
  ANd9GcTX6auabThIEZCB3ZPEhxWsvx12e-
  zpqcW3AsDHqQRKIWo5kZI3Owc2pY4r92YzGiK2z73E12Dq</ht:picture>
  <ht:picture_source>ABC News</ht:picture_source>
  <ht:approx_traffic>200,000+</ht:approx_traffic>
  <ht:news_item>
    <ht:news_item_title>&lt;b>Supreme Court</b> Upholds Key Tool for Fighting Housing Bias</ht:
    news_item_title>
    <ht:news_item_snippet>A sharply divided &lt;b>Supreme Court</b> on Thursday preserved a
    key tool used for more than four decades to fight housing discrimination, handing a surprising victory to the
    Obama administration and civil rights activists. The justices ruled 5-4 that federal &lt;b>...</b></ht:
    news_item_snippet>
    <ht:news_item_url>http://abcnews.go.com/Politics/wireStory/supreme-court-upholds-key-tool-fighting-
    housing-bias-32020580</ht:news_item_url>
```

....

Google Hot Trends XML

python
processing
of raw xml



search-logs.tsv.<timestamp>

1422869760	Statue of Liberty
1420601186	Madonna
1435242504	RJ Hunter
1435289045	Gay Marriage
1435257917	Supreme Court
1435257046	NBA Draft
1435228951	Lady Gaga
1419841674	James Horner
1429997671	Rick Ross
1431251891	Bobbi Kristina
1418924685	Kevin Love
1422605733	Mr Robot
1431049756	TPP
1430768215	Tsarnaev
1427783084	Netflix
1419807051	Dick Van Patten
1419841674	Tom Brady

...



600K - 1M rows per day

Google Hot Trends XML



search-logs.tsv.1434421802
search-logs.tsv.1434508201
search-logs.tsv.1434594601
search-logs.tsv.1434681001
search-logs.tsv.1434767403
search-logs.tsv.1434853801
search-logs.tsv.1434940201
search-logs.tsv.1435026601
search-logs.tsv.1435113001
search-logs.tsv.1435126545
search-logs.tsv.1435195801
search-logs.tsv.1435282201
search-logs.tsv.1435297906
search-logs.tsv.1435297967

600K - 1M rows per day



term	count_term
Adam Lambert	5709
Adrien Broner	5735
Alex Rodriguez	5727
Ali Krieger	18070
Alicia Cargile	2376
Amazon Echo	27531
Amy Reimann	2556
Andre Ward	5790
Arnold Schwarzenegger	38464
Arturo Vidal	1229
Astronaut Wives Club	5703
Audrey Hepburn	45232
Ballers Hbo	5733
Batman Arkham Knight	278
Berkeley balcony collapse	1293
Big Brother 17	49174
Blackhawks Parade Route	1326
Blaze Starr	1235
Bob Barry Jr	5738
Bobbi Kristina	46030
Bobby Jindal	65790

```
<page>
  <title>Anarchism</title>
  <ns>0</ns>
  <id>12</id>
  <revision>
    <id>664172331</id>
    <parentid>663482648</parentid>
    <timestamp>2015-05-26T20:26:11Z</timestamp>
    <format>text/x-wiki</format>
    <text xml:space="preserve">"Anarchism" is a [[political philosophy]] that advocates [[stateless
society|stateless societies]] often defined as [[self-governance|self-governed]] voluntary institutions,&lt;ref&gt;&quot;ANARCHISM, a social philosophy that rejects authoritarian
government and maintains that voluntary institutions are best suited to express man's natural social tendencies.&quot; George Woodcock. &quot;
Anarchism&quot; at The Encyclopedia of Philosophy&lt;/ref&gt;&quot;In a society developed on these lines
.....
[[Category:Anarchism| ]] [[Category:Political culture]] [[Category:Political ideologies]] [[Category:
Social theories]] [[Category:Anti-fascism]] [[Category:Anti-capitalism]] [[Category:Far-left politics]]
.....
```


Wikipedia Database Dump XML

python
processing
of raw xml



wiki.tsv

Aristotle	philosophers
Aristotle	writers
Aristotle	Academic
Aristotle	theorists
Aristotle	Greek
Aristotle	mathematicians
Aristotle	physicists
Ayn Rand	novelists
Ayn Rand	philosophers
Ayn Rand	writers
Ayn Rand	anti
Ayn Rand	communists
The WalkerZ	web
The WalkerZ	series
The WalkerZ	debuts
The WalkerZ	American
The WalkerZ	Comedy
...	



Wikipedia Database Dump XML



wiki.tsv



term1

term2

term1	term2
John Bickerton	golfers
Ori Uzan	players
Droid 4	motorola
Lady into Fox	novels
The Undocumented	television
Nakajima Ki-62	aircraft
Gabriel Oprea	politicians
Einar Liberg	medalists
Autism	disorders
Richmond House	health
Herbert Prohaska	austrian
BDC Aero Puma	aircraft
Parks and Recreation	television
Barbara O'Brien	people
When Love Happens	romantic

~ 11.6M rows

merged results

		<i>counts</i>				
<i>meta_term</i>	<i>term_trending</i>	<i>all_time</i>	<i>last_hour</i>	<i>last_day</i>	<i>last_week</i>	<i>last_month</i>
philanthropists	Arnold Schwarzenegger	71702	8	52	299	864
television	Sharon Osbourne	73154	9	46	351	3862
boxers	Andre Ward	38514	7	15	25	1853
award	Taylor Swift	15489	4	13	601	4017
medalists	Neymar	2120	4	13	214	691
players	Pete Rose	59937	7	79	916	8108
actors	Jake Lloyd	22482	3	66	707	6145
songwriters	Lady Gaga	84123	5	47	518	8701

search logs aggregation + trending term dictionary

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My journey from East to West

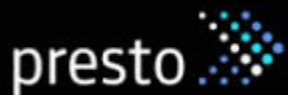


12 days
~4k miles



```
100 rows in set (0.00 sec)
```

```
mysql> select term, count_term from search_logs_last_month LIMIT 100;
```



```
0:04 [223 rows, 4.31KB] [57 rows/s, 1.11KB/s]
```

```
presto:default> select term, count_term from search_logs_last_month LIMIT 100;
```



```
Time taken: 1.233 seconds, Fetched: 100 row(s)
```

```
hive> select term, count_term from search_logs_last_month LIMIT 100;
```