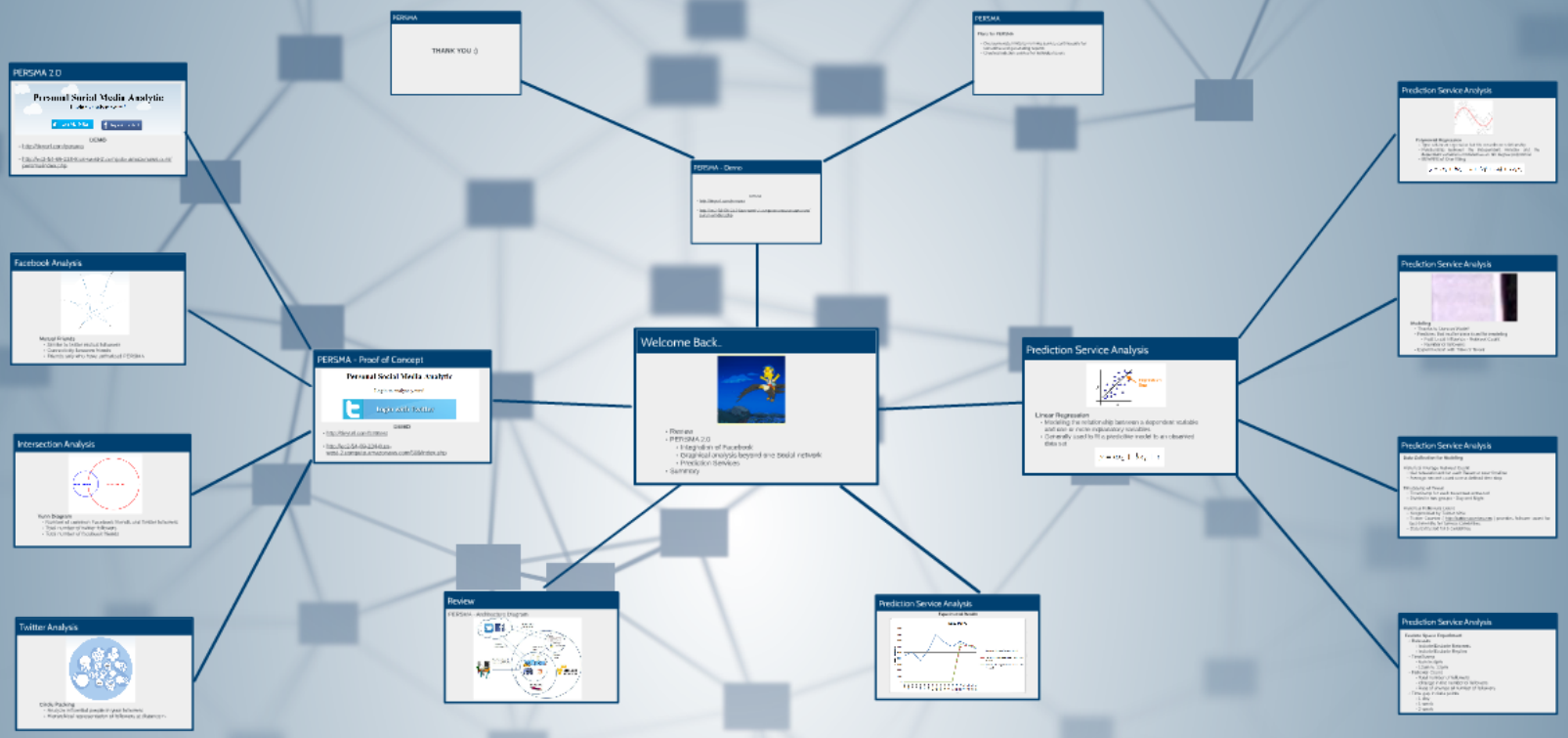
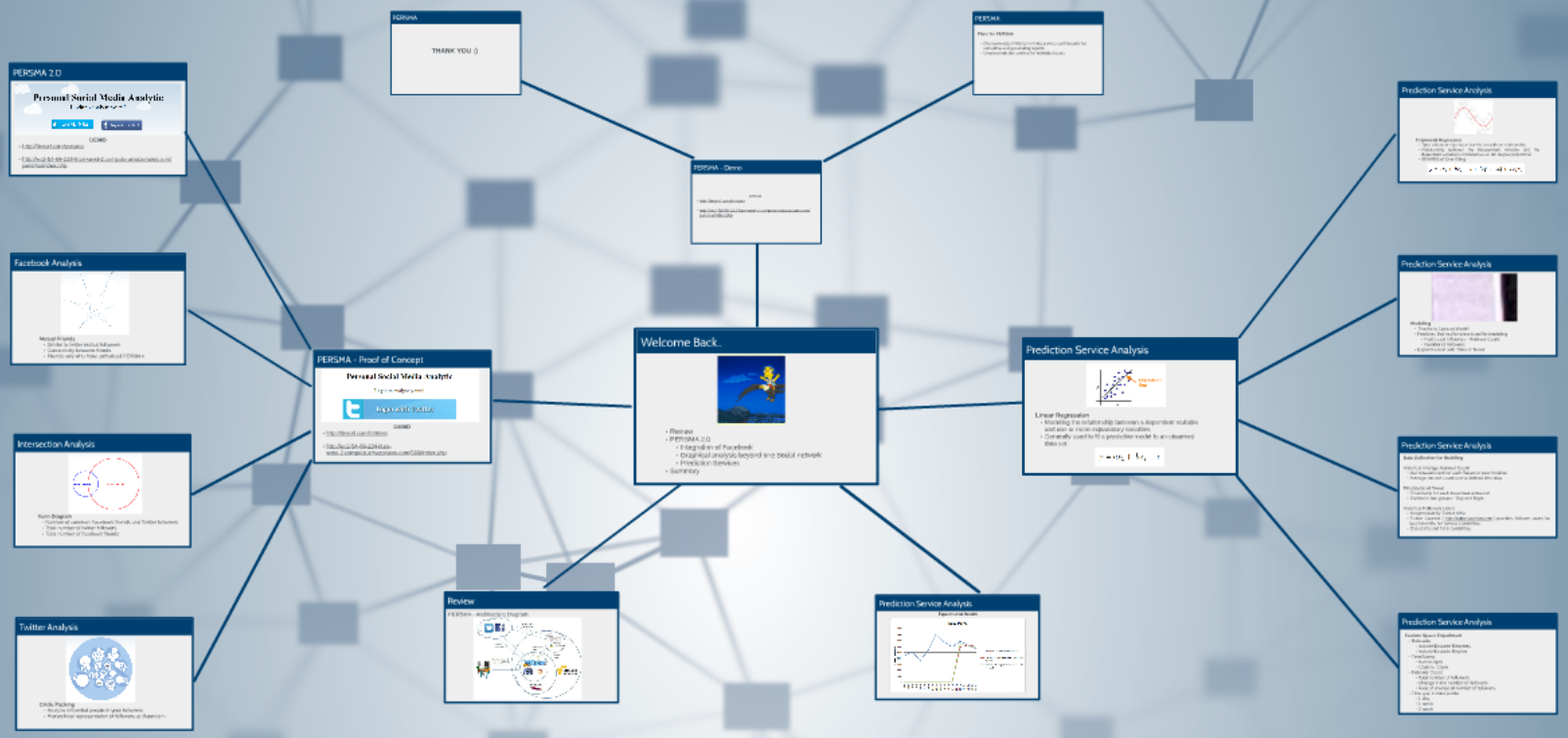


Personal Social Media Analysis Tool

Analyze yours with us today!

Prezi



Personal Social Media Analysis Tool

Analyze yours with us today!

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Welcome Back..

- Review
- PERSMA 2.0
  - Integration of Facebook
  - Graphical analysis beyond one Social network
  - Prediction Services
- Summary

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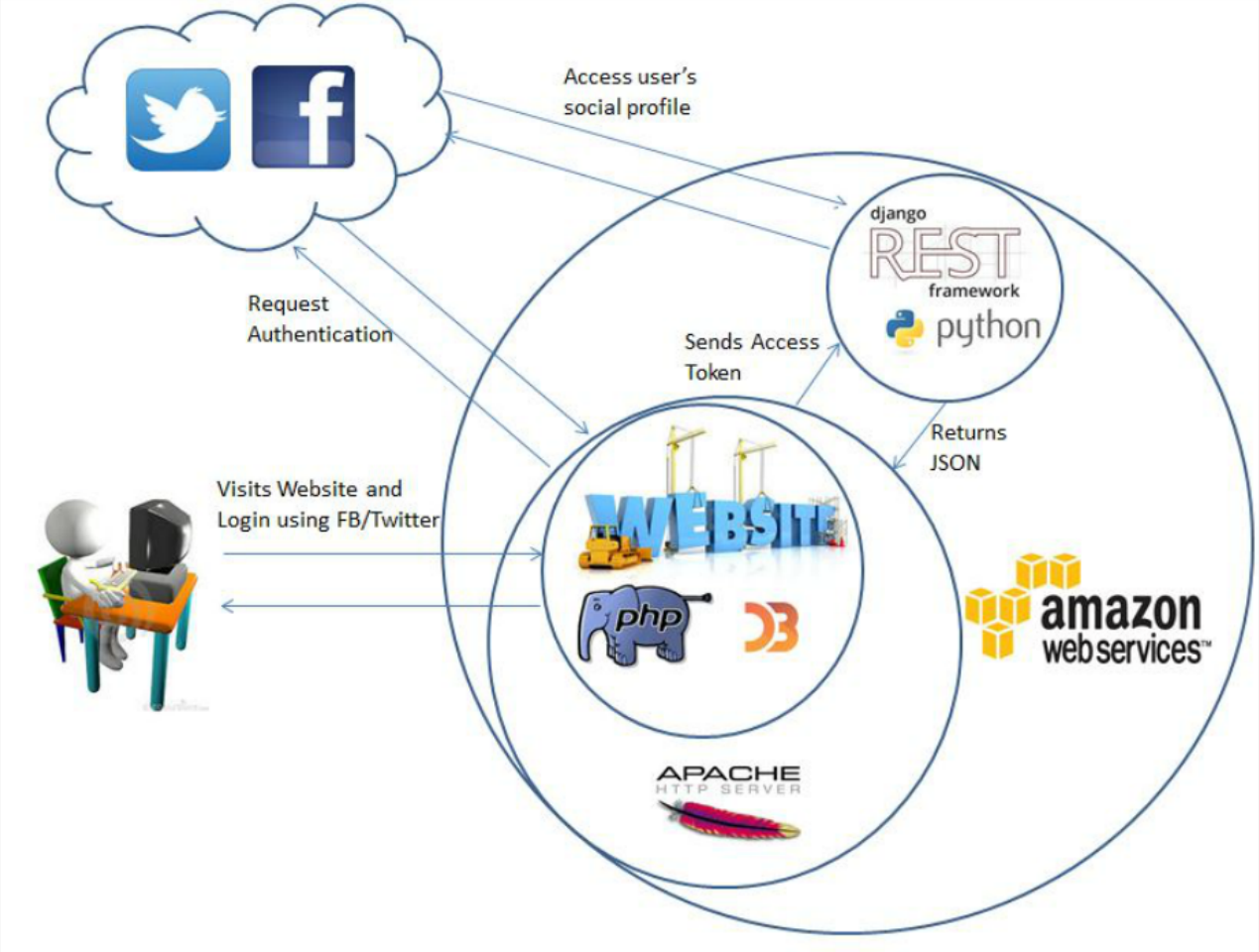
Review

PERSMA - Architecture Diagram



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PERSMA - Proof of Concept

DEMO

- http://tinyurl.com/599test
- http://ec2-54-69-234-8.us-west-2.compute.amazonaws.com/599/index.php

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PERSMA 2.0

DEMO

- http://tinyurl.com/persma
- http://ec2-54-69-234-8.us-west-2.compute.amazonaws.com/persma/index.php

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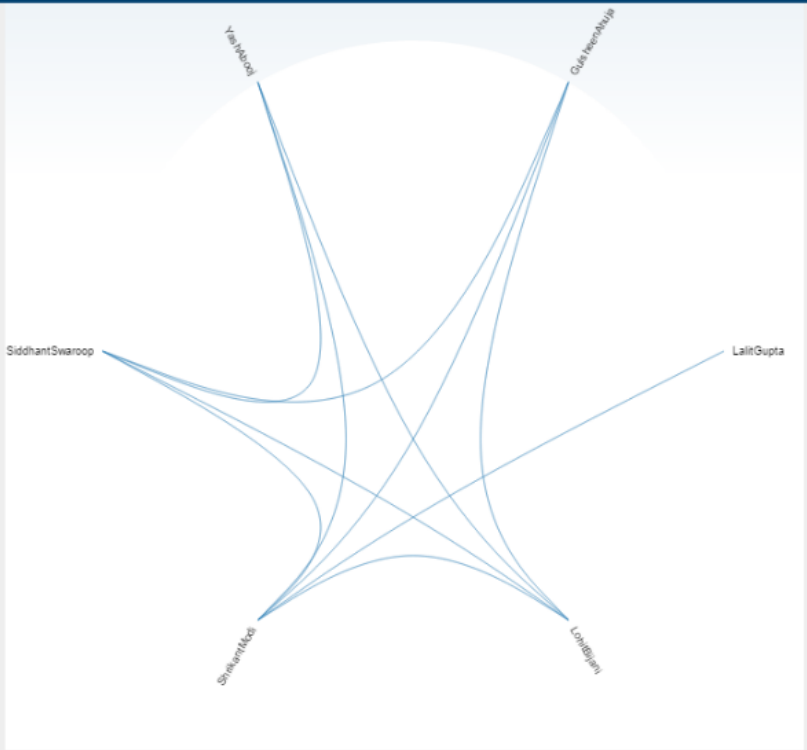
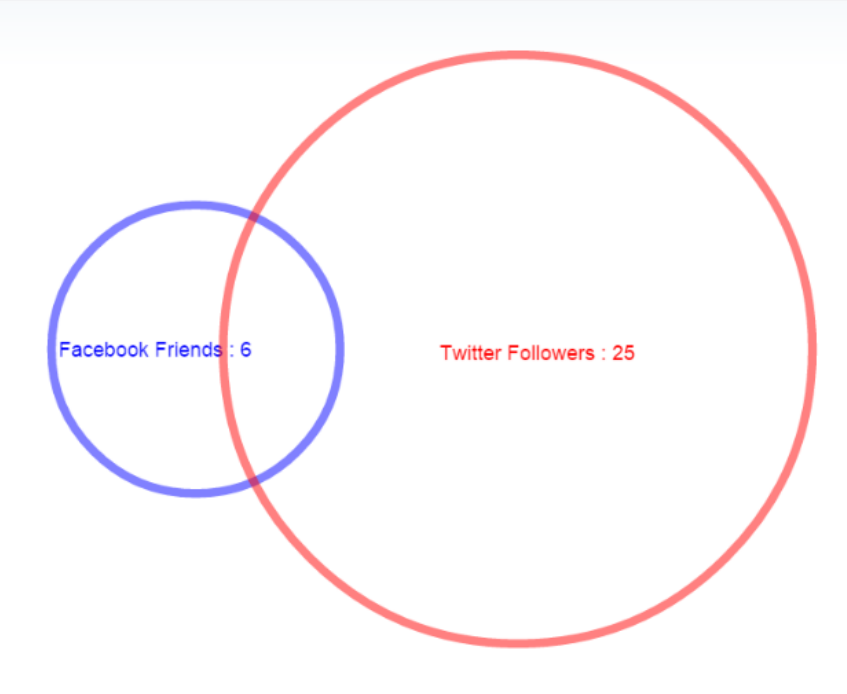
Facebook Analysis



Mutual Friends

- Similar to twitter mutual followers
- Connectivity between friends
- Friends only who have authorized PERSMA

Intersection Analysis



Venn Diagram

- Number of common Facebook friends and Twitter followers
- Total number of twitter followers
- Total number of facebook friends

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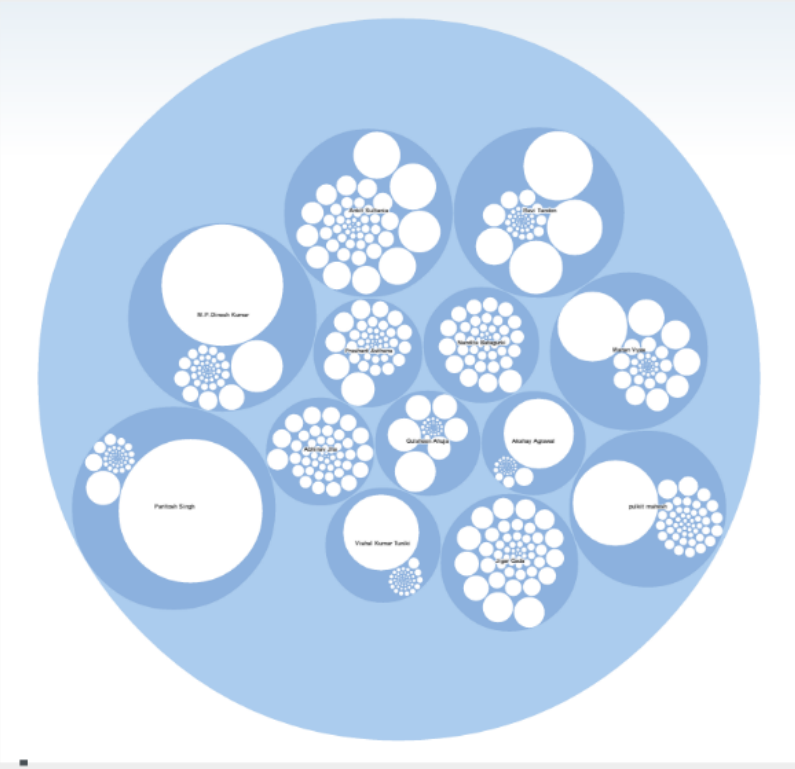
Twitter Analysis



Circle Packing

- Analyze influential people in your followers
- Hierarchical representation of followers at distance n.

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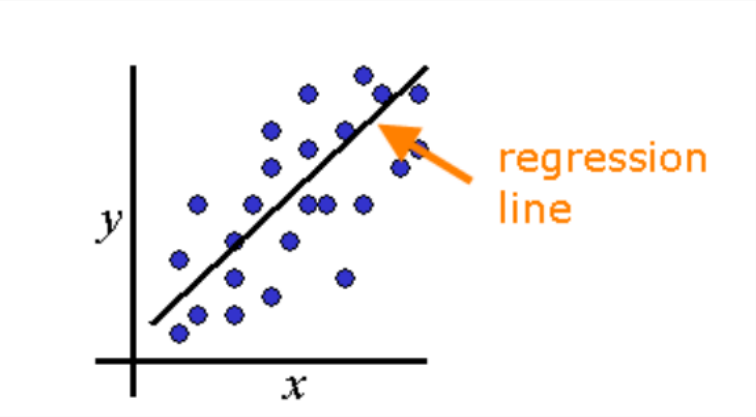
Prediction Service Analysis



Linear Regression

- Modeling the relationship between a dependent variable and one or more explanatory variables
- Generally used to fit a predictive model to an observed data set

$$y = ax_1 + bx_2 + c$$

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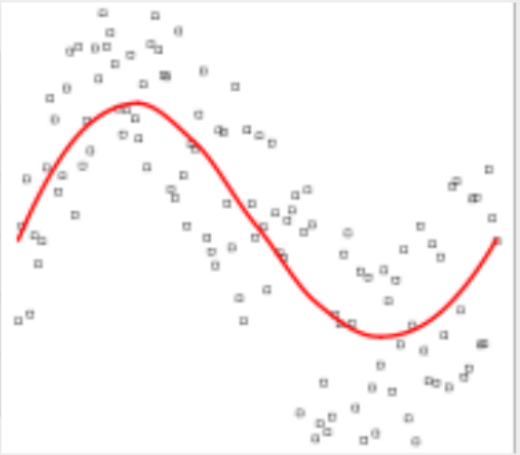
Prediction Service Analysis



Polynomial Regression

- Type of Linear regression but fits a nonlinear relationship
- Relationship between the independent variable and the dependent variable is modeled as an nth degree polynomial
- BEWARE of Over fitting

$$y = ax_1 + bx_2 + c + dx_1^2 + ex_2^2 + fx_1x_2$$

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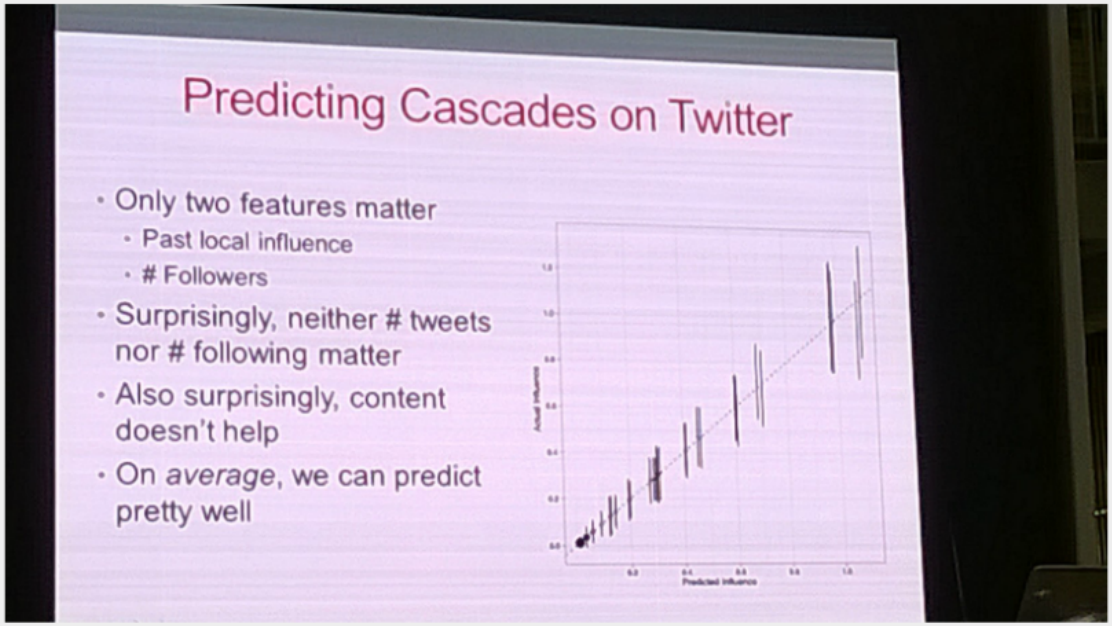
Prediction Service Analysis



Modeling

- Thanks to Duncan Watts!!
- Features that matter were used for modeling
  - Past Local Influence - Retweet Count
  - Number of followers
- Experimented with Time of Tweet

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Prediction Service Analysis

Data Collection for Modeling

Historical Average Retweet Count

- Get retweet count for each Tweet on user timeline
- Average retweet count over a defined time step

TimeStamp of Tweet

- TimeStamp for each tweet was extracted
- Divided in two groups - Day and Night

Historical Followers Count

- Not provided by Twitter APIs
- Twitter Counter (http://twittercounter.com) provides follower count for last 6 months for famous Celebrities.
- Data Extracted for 5 Celebrities

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Prediction Service Analysis

Feature Space Experiment

- Retweets
  - Include/Exclude Retweets
  - Include/Exclude Replies
- TimeStamp
  - 6am to 6pm
  - 12am to 12pm
- Follower Count
  - Total number of followers
  - Change in the number of followers
  - Rate of change of number of followers
- Time gap in data points
  - 1 day
  - 1 week
  - 2 week

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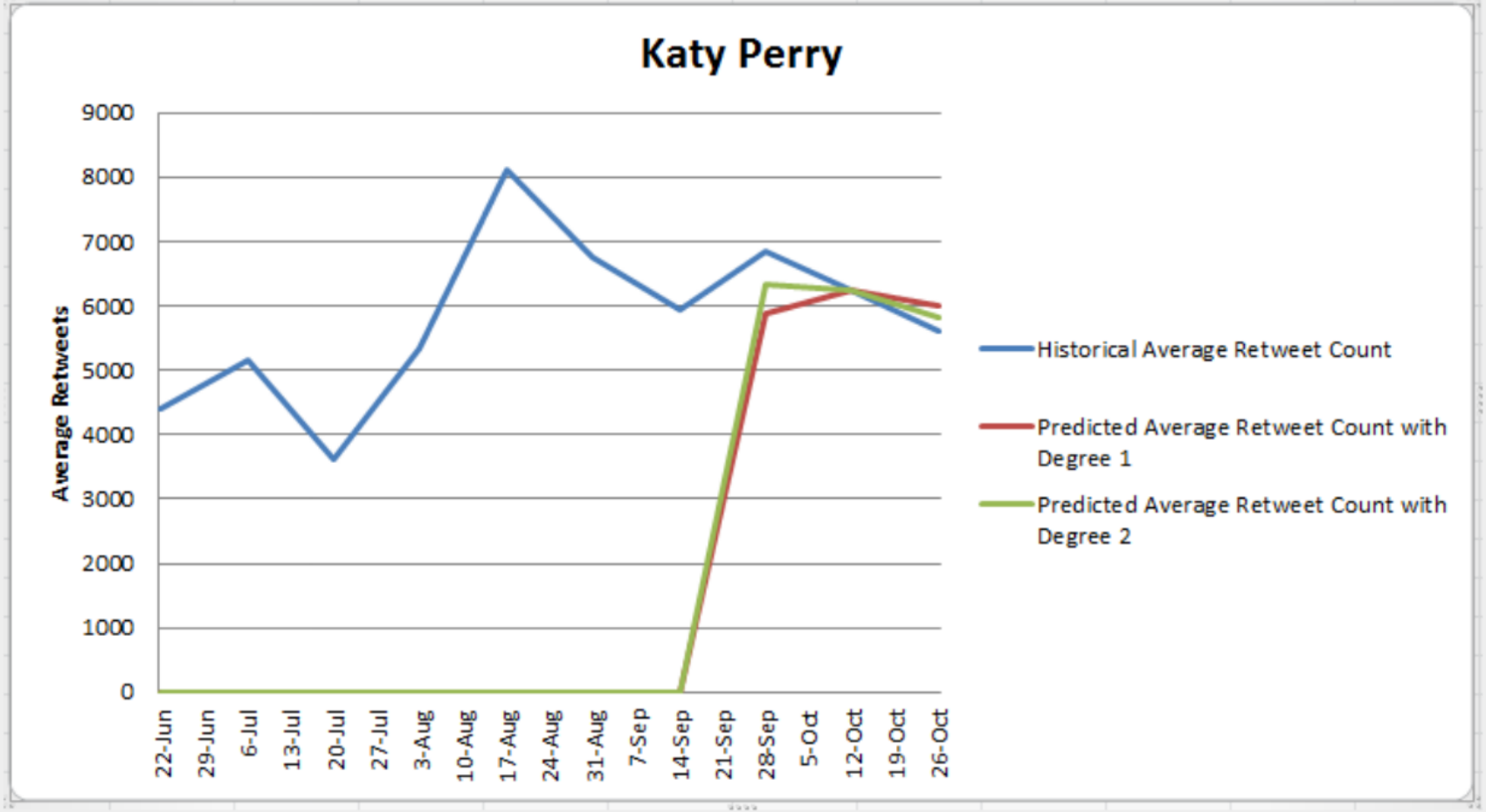
Prediction Service Analysis

Experimental Results



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PERSMA - Demo

DEMO

- http://tinyurl.com/persma
- http://ec2-54-69-234-8.us-west-2.compute.amazonaws.com/persma/index.php

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PERSMA

Plans for PERSMA

- Overcome rate limits by running service continuously for sometime and generating reports
- Create prediction service for individual users

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PERSMA

THANK YOU :)

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