**VIKAS REDDY VANTERU**

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***PROJECTS PORTFOLIO***

* **Dynamic Web App using Web Services (Google Cloud Compute). Mar-May 2016**
  + Using Google app engine web services- Image Transformation API (with PIL), Google Cloud Data Store and Blob Store, NDB Data Store API, Memcache, Urlfetch, Image Library, and mail.
  + *GitHub URL:* <https://github.com/vvikas094/cloud_web_application_GCP>

**Functionality:**

- The user can use both local images and image url’s to load the image and edit them and also download the image which is edited. Also, user can provide feedback in text and also give rating for the website.

* **Derived statistics and tested Hadoop on large datasets. Mar-May 2016**
  + Using Hadoop, statistics of the data are derived from 500GB twitter dataset.
  + *GitHub URL:* <https://github.com/vvikas094/Hadoop_for_Real_problems>

**Functionality:**

The following statistics are derived from the data:

- At what hour of the day a particular user tweets the most on average.

- The day of the week on which a particular user tweet the most on average.

- A particular user’s tweet length compared to average of all the others.

- The lat/long of the centroid of all the tweets, the name of city/state of the centroid.

* **Derived statistics and tested Spark on large datasets. Mar-May 2016**
  + Using Spark, statistics of data from twitter and Google 1gram data are derived.
  + *GitHub URL:* <https://github.com/vvikas094/Spark_for_RealProblems>

**Functionality**:

The following statistics are derived from the data:

Twitter:

- At what hour of the day a particular user tweets the most on average.

- Which user tweeted the most, top 5 longest tweets and bottom 5 longest tweets.

Google 1gram:

- The number of unique words searched in each year and plot them with year on x axis and number of words on y axis.

- Average word length of all unique words for all years available in the data.

* **Assembled and deployed an announcement board web service using Google cloud compute. Feb-Mar 2016**
  + Using Google app engine services- App Engine Data store & Google User Management, an announcement board web service is deployed.
  + *GitHub URL:* <https://github.com/vvikas094/Announcement_board_GCP>

**Functionality**:

- The website is an announcement board where you can show your announcements among team members. The website first redirects you to Google’s account login page. The user is then redirected to an "Announcement Board" page where the announcements can be shared.

* **Designed and focused on MapReduce functionalities using python. Feb-Mar 2016**
  + Using MapReduce, the following functionalities are implemented with python.
  + *GitHub URL:* <https://github.com/vvikas094/MapReduce_mincemeatpy>

**Functionality**:

- Given a text file name on the command-line containing one number per line, print out the sum, count, and standard-deviation of all the numbers in the file.

- Output all the prime numbers which are palindromes between 2 and 10 million under 10 seconds.

- Given a string of characters on the command line, using MapReduce to look through all combinations for a password match and find what string hashes to it.

* **Developed meme generator web service using Docker and PHP. Jan-Feb 2016**
  + *GitHub URL:* <https://github.com/vvikas094/Meme_Generator_Docker>

**Functionality**:

* A web service which makes Meme’s using URL fetch and text given as text in address bar. The web service is kept in an image using Docker for easy distribution.
* **Assembled and developed an Image modification web service using AWS. Jan-Feb 2016**
  + Using Amazon EC2, PHP-GD and image functions, a web service is deployed which have the following functionalities.

**Functionality**:

- An image can be uploaded from the local computer or can be fetched using URL.

- The image brightness and contrast levels can be varied and the image can be rotated.

- The modified image can be downloaded using download button.

* **Designed a Student relational database using MySQL. Sept 2015**
  + Using relational database design methodology, a database to store student’s academics, residential and faculty information is designed.

**Functionality**:

- Deriving conceptual schema(ER schema) from the requirements given using good design decisions. Translation of ER schema to relational schema using translation algorithm and conventions, Implementation of the derived schema using MySQL. Also, populated the database and queried on it.

* **Created UNIX shell history feature. Aug 2015**
  + Created a “history” feature for UNIX shell which shows the list of commands entered previously along with numbers to show the order in which they were entered.
* **Cost effective Automatic greenhouse weather control system using Wi-Fi. Dec-May 2015**
  + An embedded systems based controller which controls temperature, humidity, soil moisture and light intensity in greenhouses and sends the data using Wi-Fi to smartphone or laptop.