

MBTI Assessment

Srividya Ganapathi



Purpose of App

- The Myers Briggs Type Indicator (or MBTI for short) is a popular personality test that divides everyone into 16 distinct personality types. Companies use it to analyze job applicants, managers use it to determine which employees might have a good relationship with one another, and your friends might use it to tell the world what kind of person they are.
- The objective of this project is to identify the personality and characteristics of a user as indicated by the MBTI test using patterns in the user's chosen statements or writing styles.
- A machine learning predictive model will be developed to classify a user into a personality type which can be deployed as a website as well as an Android/iOS app. This overall explores the validity of the test in analyzing, predicting or categorizing behavior.

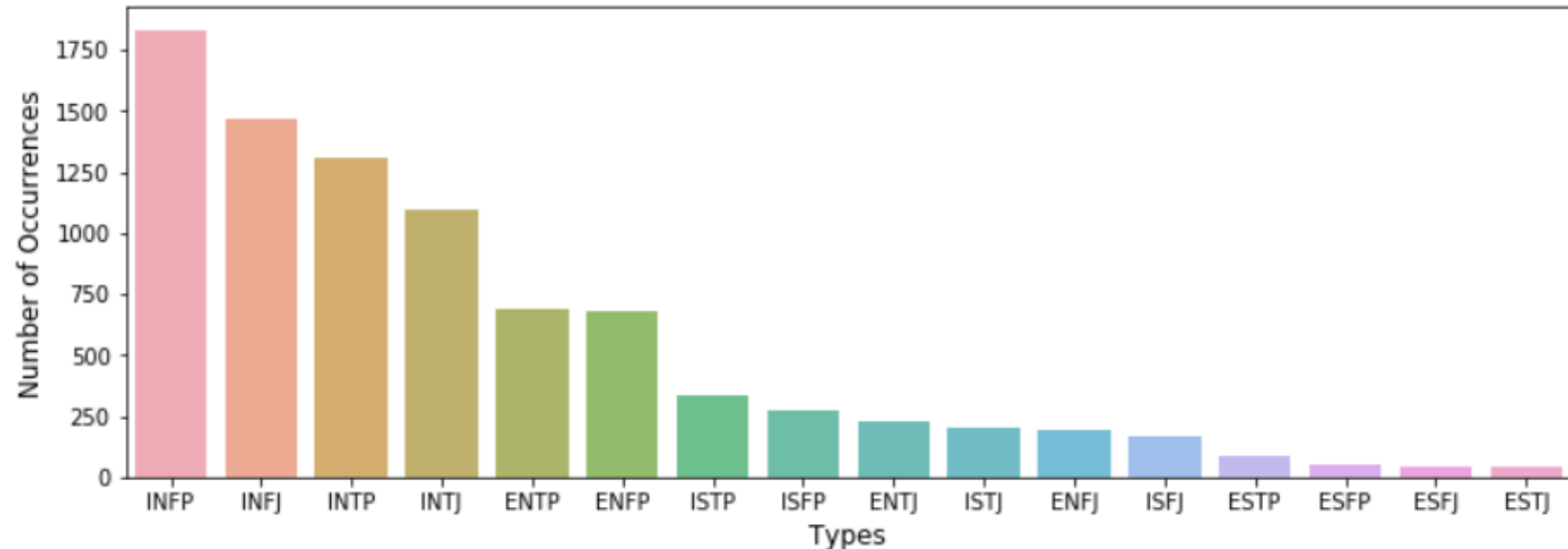
Some basic uses could include:

- Use machine learning to evaluate the MBTIs validity and ability to predict language styles and behavior online.
- Production of a machine learning algorithm that can attempt to determine a person's personality type based on some text they have written.

App Demo

Data Analysis

- **Input Data:**
 - (MBTI) Myers-Briggs Personality Type Dataset
 - Source: [Kaggle](#)
- **Details:**
 - This dataset contains 8675 rows of data, on each row is a person's:
 - Type (This person's 4 letter MBTI code/type)
 - A section of each of the last 50 things they have posted (Each entry separated by "|||" (3 pipe characters))



Data -> Model -> Results

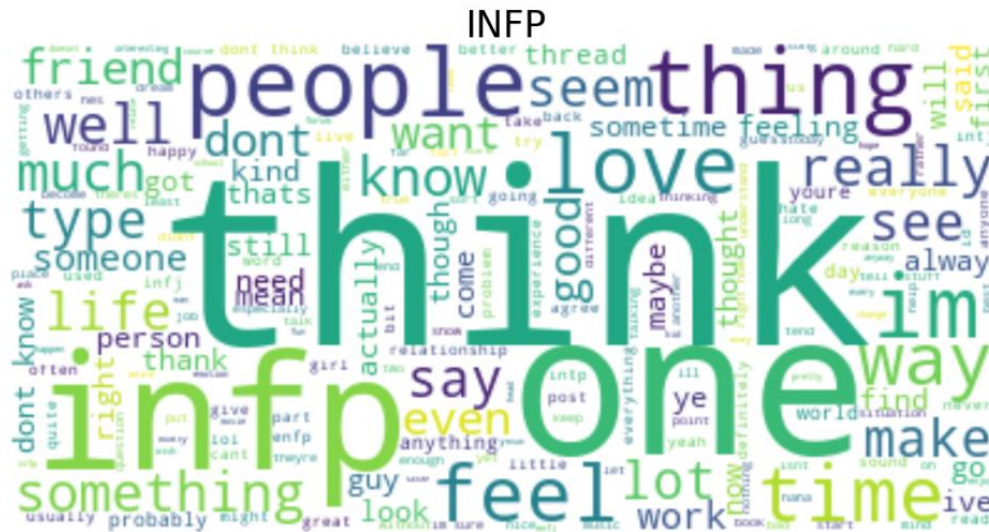
- ❑ Preview data to understand MBTI Type distribution.
- ❑ Preprocessing posts
 - Remove urls
 - Keep only words and put everything lowercase
 - Lemmatize each word
 - Remove MBTI profiles strings. Too many appear in the posts!
- ❑ Vectorize with count.
- ❑ X / Y data
 - X: Posts in count-vectorizer representation
 - Y: Binarized MBTI
- ❑ XGBoost Model
- ❑ Success Criterion: Accuracy

*** Note, here I build a model for each type indicator.**

```
IE: Introversion (I)/Extroversion (E) ...  
[[1632  17]  
 [ 474  46]]  
* IE: Introversion (I)/Extroversion (E) Accuracy: 77.36%  
NS: Intuition (N)/Sensing (S) ...  
[[1844   2]  
 [ 320   3]]  
* NS: Intuition (N)/Sensing (S) Accuracy: 85.15%  
FT: Feeling (F)/Thinking (T) ...  
[[915 270]  
 [270 714]]  
* FT: Feeling (F)/Thinking (T) Accuracy: 75.10%  
JP: Judging (J)/Perceiving (P) ...  
[[ 303  557]  
 [ 170 1139]]  
* JP: Judging (J)/Perceiving (P) Accuracy: 66.48%  
XGB applied successfully
```

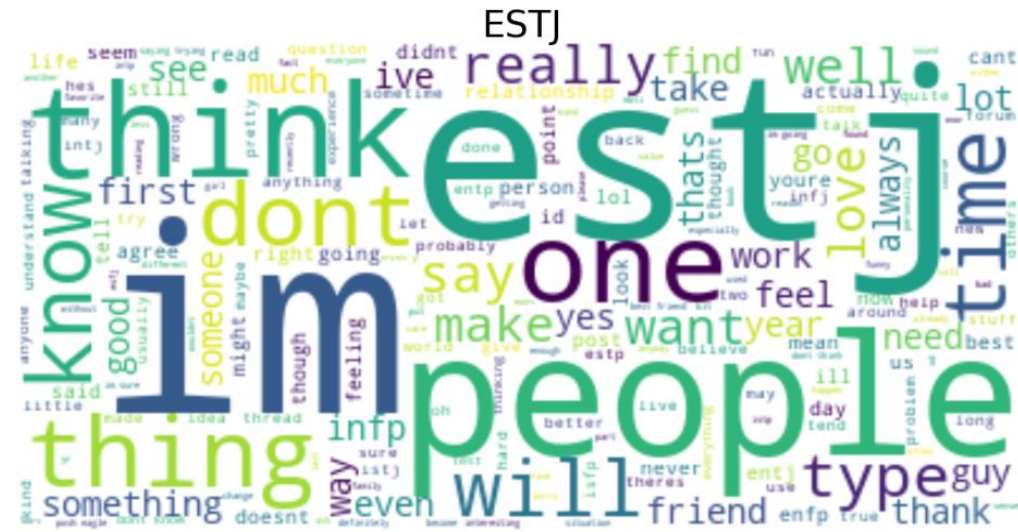
Interesting Insight

Most Popular Category



- Feel
- Love
- Friend
- Think

Least Popular Category



- Know
- I'm , I've
- People
- Always



Thank You

Questions?

Contact Info

- For more information on this project, please contact:
 - Project Owner: Srividya Ganapathi
 - Email: srividyanapathi2020@u.northwestern.edu