**MACHINE LEARNING: PROJECT PROPOSAL**

**FRIEND RECOMMENDER SYSTEM (FACEBOOK)**

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**PROJECT ABSTRACT:**

* We will implement a friend recommendation system in python using collaborative filtering.
* We plan to use and analyze different methods for recommending friends to a user based on their common friends, number of friends and simple random suggestion.
* To find the potential friends we will measure them using the ‘score’ metric where a higher score would mean that user is a better candidate for being friend.
* We will then test the recommendation system accuracy by removing the friendship edges of all friends in the training data and then compute which method gives the most similar recommendations to that of the training data.
* The developed system will then be tested on data like that of the Facebook and accuracies of different methods will be computed similarly as above.
* We would perform many trails of randomly chosen users from the data to compute accuracies.
* A subset map of friendship of the users will be displayed using edges and nodes in the form of graphs in python.

**RELEVANT TERMS:**

* Training data: Friendship data of a subset of the Facebook data or create a dataset of users with their friendship.
* Test Data: Testing will be performed on Training Data and Facebook Data.
* Recommender System: A computer System which gives suggestion is called Recommender System
* Collaborative filtering: It states that if your past behavior were similar to some other person than future behavior will be similar as well.

**REFERENCES:**

* [**https://courses.cs.washington.edu/courses/cse140/13wi/homework/hw4/homework4.html**](https://courses.cs.washington.edu/courses/cse140/13wi/homework/hw4/homework4.html)