Group 7 (Matchmakers)

Application Proposal

With Matchery, we hope to solve the problem that arises when individuals and organizations come together, with the individuals seeking to join the best organizations and the organizations seeking to recruit the best individuals. This kind of matching problem is very common in the student group space at universities all over the country. The decision-making itself consumes a large amount of time, and relying on a human to make the matches is not guaranteed to produce the most optimal results for both parties. Solutions exist for “one-way” matches (where either the individuals or the groups are not ranked in the matching process) such as When2Work or WhenIsGood, but there is nothing currently out there for personal/non-institutional level organizations that require this kind of application.

Matchery is our web application that aims to provide quick and accurate matches in these situations, while also allowing users to stay organized with the groups that they are managing. This solution consists of two main parts: the algorithm to automate the complicated matching problem and the site for individuals and organizations alike to join and organize their application events and connections. We believe that this is a project that has enough sophistication to be a worthy use of our time for the rest of the semester. The workflow can be broken down into three phases:

Phase 1: Research. Most of our time here will have to be invested into investigating the algorithm we wish to use and exploring the best options for our front end and back end. To provide a solution that is modern, we will need to look at the current ecosystem of frameworks and determine which one provides us with the most functional use. This phase will also involve each member learning new frameworks that we have otherwise not used before, as many of our proposed frameworks (React, Node.js, Django, Firebase) are new to our group.

Phase 2: Implementation. Once we have decided on a front end, back end, and algorithm system, we can begin to create the infrastructure to deliver a minimum viable product to users. This MVP will allow us to gather early feedback and continuously improve our solution, which will be initially focused on completing “two-way” individual and organization matches.

Phase 3: Extension. Our group sees the idea behind Matchery being applicable to a number of different problems related to matching in general. Extension here will involve investigating those use cases, along with feedback from users, to determine what extra value our product can provide. Some cases we have discovered already include a feature for “one-way” matches alongside “two-way” matching, and integration of both types into a schedule for better organization.

Finally, having four members in our group will allow us to investigate our framework and algorithm choices more thoroughly, as well as provide more manpower for user experience feedback gathering and functional extension. This project will also require us to dive into a lot of code frameworks that we are not currently familiar with, so having another group member will allow for another perspective and guidance point for learning how to use everything.