# RSO Matching App

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**Project Summary:**

Our project is an RSO Matching App that will help students at the University of Illinois at Urbana-Champaign find which Registered Student Organizations (RSO) are best for them based on several factors. The application will take in user data and be able to compare it to a database about all active RSOs on campus to find the optimal match for students. The app will be an organized way for students to explore new opportunities on campus without being overwhelmed by the number of options available. Our RSO Matching App will provide information on regular general meetings for organizations and a point of contact for new members. Overall we want to minimize barriers to getting involved on campus and streamline the RSO selection process.

**Description:**

This app will allow participants to create a profile featuring their year, major, interests, skills, and more. Accounts can be made using a valid University of Illinois student email address to ensure that only students are accessing this application. With this data, the application will be able to provide ranked recommendations of RSOs for participants to explore that match their characteristics and interests. This application will also be able to feature general basic information about RSOs on campus including points of contact and descriptions to help make the whole process a little less intimidating for newer students. Basic data about the RSOs will be collected from OneIllinois where much of the standard information about existing organizations is stored. It can then be supplemented by the organizations executive boards and membership outreach teams who will be able to sign on to the app as organization “owners” and add in more specific information. Students will be able to sort their preferences for RSOs by a few characteristics to filter out organizations they may be less interested in. This includes sorting RSOs by tagging them as either technical, professional, cultural, or recreational/social. Overall the problem we are hoping to solve is the issue of reduced involvement from newer students who can be overwhelmed by the many opportunities on campus. We want the whole RSO selection process to be fun and exciting, because that is what these extracurriculars are meant to be in the first place.

**Creative Component**:

The creative component that will be utilized in our application is interactive visualization and a smart recommendation system. We will create an interactive map that shows where clubs are taking place, which will make it easier for newly admitted students to navigate. On top of that, there will be a system that will personalize club suggestions based on a student's major, interests, past extracurricular activities, and club engagement trends.This will ensure a smooth and accurate interaction between the application and user.

**Usefulness:**

The RSO Matching App is a valuable tool designed to simplify the process of discovering and joining RSOs at UIUC. With over a thousand RSOs on campus, students—especially newcomers—often find it overwhelming to explore and identify organizations that align with their interests, skills, and goals. Our application addresses this challenge by providing personalized recommendations, detailed RSO information, and filtering options to help students make informed decisions. The core functions of our application are user profile creation, personalized RSO recommendations, search & filtering options, general RSO information, and a user-friendly interface. While similar platforms exist, such as UIUC's RSO directory OneIllinois, our application stands out in several ways:

1. Personalization: Unlike static lists or broad search functions, our app will dynamically recommend RSOs based on individuals user data.
2. User Experience: The OneIllinois portal requires students to manually sift through RSOs, whereas our app simplifies discovery through ranking and filtering.
3. Accessibility: Our goal is to minimize barriers to involvement by providing direct points of contact and easily digestible summaries for each RSO.

Through these features, the RSO Matching App will serve as a much-needed bridge between students and campus organizations, making the process of finding and joining RSOs more intuitive and engaging.

**Realness:**

- enrfa24.xls
    - This dataset is from the Illinois Division of Management Information and contains general student information from the Fall 2024 class, such as demographic, major, concentration, and year in an .xls format. The cardinality of this dataset is 971, and the degree is 29.
- course-catalog.csv
    - This dataset is from Data Science Discovery and contains course information from courses at UIUC in a .csv format. The cardinality of this dataset is 12322, and the degree is 28.

**Functionality:**

- **Profiles**
    - Users will be able to create a profile by inputting personal details, such as their grade, major, minor, interests, skills, and preferences. Users will also be able to edit or delete any of these personal details from their profile as well as having the ability to delete their profile.
- **RSO Matching/Recommendation**

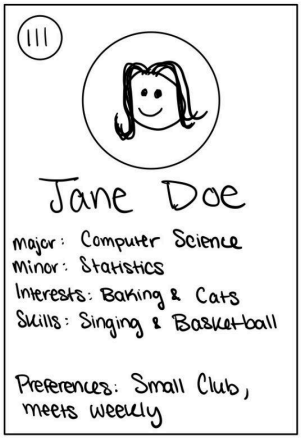
    - Based on the user's profile, our app will generate a ranked list of RSOs that match their interests and skills.
    - Users will also be able to filter through RSO options based on size, type, major, etc.
    - Users will also be able to bookmark and mark that they're in an RSO.
- **RSO Search**
    - Users will also be able to search through the entire RSO database and manually search for RSOs that they may be interested in in addition to the recommendation system.
    - Users will be able to select and look through RSO pages, containing general information about the RSO.
- **RSO Owner**
    - If a user can claim an RSO as a board member, then they will be able to update their RSO's description and contact info as well as add additional info such as meeting times, contact info, and logos

**Project Work Distribution**

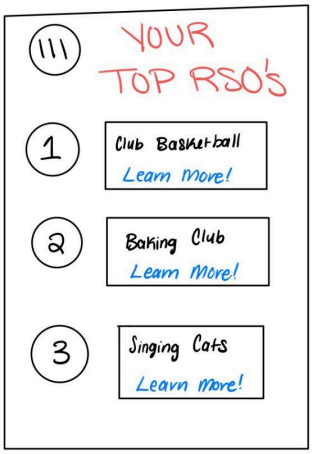
To develop this project, we will distribute work responsibilities across frontend, backend, database management, and testing as the following. Andrew will focus on frontend development, designing and implementing the user interface, including the login/signup pages, profile setup, and RSO search features. Melissa will handle backend development, setting up the authentication system, integrating data from OneIllinois, and implementing the recommendation algorithm that matches students to RSOs based on their interests. Emily will be responsible for database management, designing and maintaining the database schema, handling operations for RSOs and user profiles, and ensuring secure data storage. Finally, Jennifer will oversee testing and deployment, conducting unit and automated tests, and managing the hosting and deployment of the application. Regular collaboration and code reviews will be conducted to ensure seamless integration across all components.

**Low-Fidelity UI Mockup**

## Profile




## RSO Matching




## RSO Search