

Northeastern's Peer Tutoring Program

Group10: Wenting Yue, Xiaofei Xie, Yuxi Shen

Abstract

We are interested in the population distribution of **Northeastern's Peer Tutoring Program**. We are eager to answer our partner's questions on how to improve the peer tutoring service to all undergraduate students. For example, we are going to find out the most valuable peer tutor who takes charge of different classes content. We are going to find out the classes which always need multiple peer tutors to be responsible for them. We would like to use our visualization techniques to display the improvements that our Peer Tutoring Program could do to enhance all students' academic performance.

Introduction

Our project topic is to visualize how the patterns of tutoring hours and the tutoring needed for each course. The motivation is that PTP is a valuable program for students to find tutors when they meet difficulties in ongoing courses, and an insightful visualization could help PTP to be more prepared for various courses and how they manage the tutors. The visualization may be useful for PTP to recruit more students for the courses that have high needed and determine the efficiency of the tutor's payroll.

Partner Information

Our Partner is Nicole Wang, the supervisor of the Peer Tutoring Program at Northeastern University. She has participated in the recruiting and managing process in PTP over recent years. She is really familiar with the system and knows the potential shortage and difficulties during the growth. She has shown great enthusiasm about the partnership and is willing to give any support. Here is her email:

n.wang@northeastern.edu.

Data

The dataset we use is sent by PTP collected from last semester. The dataset has separate sheets including the payroll and tutoring hours for each tutors, the tutoring hours for each course taught by each professor from each college, and a summary of total tutoring hours, sessions, and type of tutoring for each college. Nicole has preprocessed data by hiding the real name of the processor in case of the privacy of the dataset.

Execution Plan & Preliminary Work.

We plan to visualize what the implicit enhancements that our PTP program could do to benefit all undergraduate students. The technologies we need are Javascript, D3, HTML, and CSS.

Group Charter

Group Purpose

We all have passion on contribute to our campus and we all heard about PTP before, so we form our group of three people. The purpose of our groups is to help visualize the data about peer tutor population distribution among all colleges and different classes. Our stakeholders are the leader of PTP and the whole student organization. This organization would need our visualization to set effective strategies to organize the peer tutor resources and to assign them into different classes groups. Our intended users might be the student organization leaders and the coordinators, who expect to gain meaningful insights from our visualization.

Group Goals

Our group's project is to create a data visualization for Northeastern's Peer Tutor Programming to help Nicole Wang and her teams gain useful insights. When conducting this project, we will have frequent communications with our partner Nicole, and we will hold group meetings every week to make some progress on our project. Our quality goal is to create a useful, accurate, and easily understandable data visualization model to help our stakeholders. We are collectively aiming for a top grade in this course, so all of us will try our best to perform well. We are all willing to commit enough time to this project, and willing to maintain our curiosity toward the dataset and the passion for this project.

Group Member Roles/Responsibilities

Wenting Yue is the Communications Director. She will meet Nicole Wang throughout the semester to make sure we are on the right path of the project and what she desired for the outcome. Wenting would inform any advice or updates from our partner to other group members, and reach out to the professor when we have any confusion. Xiaofei Xie is the meeting facilitator. She will schedule the meeting and prepare for any discussion. Also, Xiaofei would make sure group members know the project progress and what we expect to do for the next phase. Yuxi Shen would be the group leader. Her responsibility is to track the quality of the works, identify any possible problems, and separate the works to each group member in a reasonable way.

Ground Rules

- Meeting frequency: At least one virtual meeting per week.
- Norms and ground rules of our group:
 - Every team member contributes to the project fairly.
 - Every team member stays mentally and physically present.
 - Let everyone participate.
 - Listen with an open mind.
 - Think before speaking.

- Conduct discussions and make decisions:
 - Our team enables everyone to speak out their ideas, and every decision would be consented by the whole team. If team members have dissenting views, we would listen to the team leader.
- Participation:
 - We create a WeChat group to share each member's progress and to do brainstorming and discussion.
 - As the project develops, it is expected that each one would contribute to the GitHub pages of this project.

Potential Barriers and Coping Strategies

- Given that we are all second-year students and are looking for first coops, we all have tight schedules. Sometimes, maybe there are conflicts between our schedules which makes it hard to set a meeting time weekly. To solve this problem, we will set a potential default weekly meeting time. If someone has to be absent from this meeting, this team member should let the other two members know at least 1 hour before, so we could settle down another time to meet.
- It is a common scenario that someone in the team has to handle more than the others, so we would like to
 - Break down projects into smaller tasks and workstreams
 - Split the workload as same as possible
 - Ask for help from others(TAs, professors, team members) when it is out of capacity