

Senior Design Server/Client Development for Project Matching [Phase 3]

Week 5-6 Report

February 11 – February 24

Client: Dr. Akhilesh Tyagi

Faculty Advisors: Akhilesh Tyagi, Jake Grundmeier

Team Members

Evan Brummer

Frontend Design
Backend Integration

Robert Holeman

Algorithm Design
Algorithm Testing

Joshua Izumba

Frontend Design
Frontend Testing

Max Kueller

Backend Design
Algorithm Design

Noah Nelson

Backend Design
Database Design

Devin Tigges

Algorithm Design
Algorithm Testing

Past Week Accomplishments

- Algorithm
 -
- Frontend
 - Created the Account page for users to enter any information not provided by SSO or external login (name, major).
 - Started tests with fetch() requests at login.
- Backend
 - Integrated algorithm into backend and created endpoint for interacting with it

Pending Issues

- Algorithm
 -
- Frontend
 - Remove placeholders and add more HTTP request functionality.
 - Loading indicators for requests.
 - Create instructor dash
 - Continue writing dashboard tests
- Backend
 - Create backend test data to run algorithm

Individual Contributions

Name	Contribution	Hours	Total Hrs
Evan Brummer	Created /account page, adding CSS for smoother email-password screen transition and fetch() calls.	6	14
Robert Holeman	<ul style="list-style-type: none">Reorganized data functions to better facilitate future integration with Backend/AlgorithmDesign and Prototype Instructor dash options including multi page and grid	7	14
Joshua Izumba	<ul style="list-style-type: none">Fixed sorting table action button alignmentStarted writing dashboard tests	6	13
Max Kueller	Added functionality for taking a CSV file with user data and automatically populating the database.	5	13
Noah Nelson	Migrated algorithm over to backend, created mapping so that it will work with current schema and entity models	8	16
Devin Tigges	Worked on algorithm test suite	2	13

Plans for Coming Week

- Create demo for running the algorithm in the backend.
- POST methods for Login and Dashboard.
- Create demo for Frontend Instructor Dash

Meeting Summary

We discussed what functionalities we want on Instructor dash. We also discussed options for integrating the algorithm into the backend

Broader Context

Looking back on section 4.4 of our design document, we do not believe there are any major new effects that have been introduced. We can argue for the positive effects of our project fairly easily, specifically that it is purely a software project aimed at speeding up the senior design project matching process. Adding an algorithm that will automatically match students to their preferred projects instead of having an instructor or administrator do it manually is going to be significantly faster.

Overall, there are not very many negative effects of this project that we have identified yet. Since all it will do is be deployed on an already existing and functioning server, there probably won't be any negative environmental effect as power consumption would not increase much. It is worth considering the loss of some more complex matching decisions that may have been made during the manual assignment process, but we have put objective criteria in place to ensure that the matching results align with the students' preferences as closely as possible.