College Sports +

Fall Design Presentation

Team Members

Juan Alvarado

- Computer Engineering, Artificial Intelligence
- 5 Co-ops with BMW Group
- Expertise: Python Programming, AI models

Jordan Herman

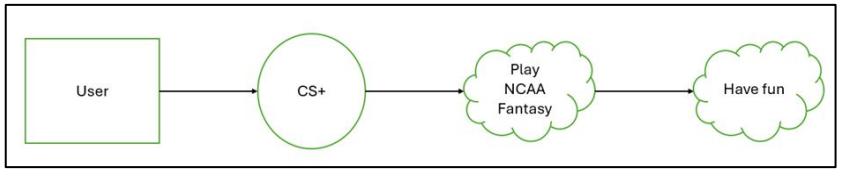
- Computer Science, Business Administration
- 2 Co-ops with BMW Group
- 3 Co-ops with London Computer Systems
- Expertise: Client Side Development/Deployment, UI/UX

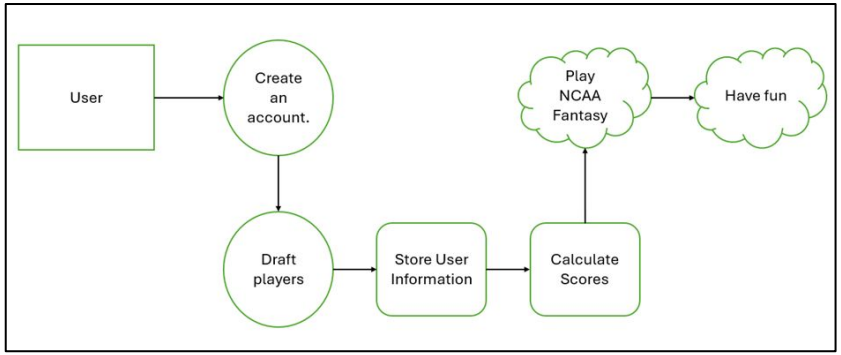
Project Abstract

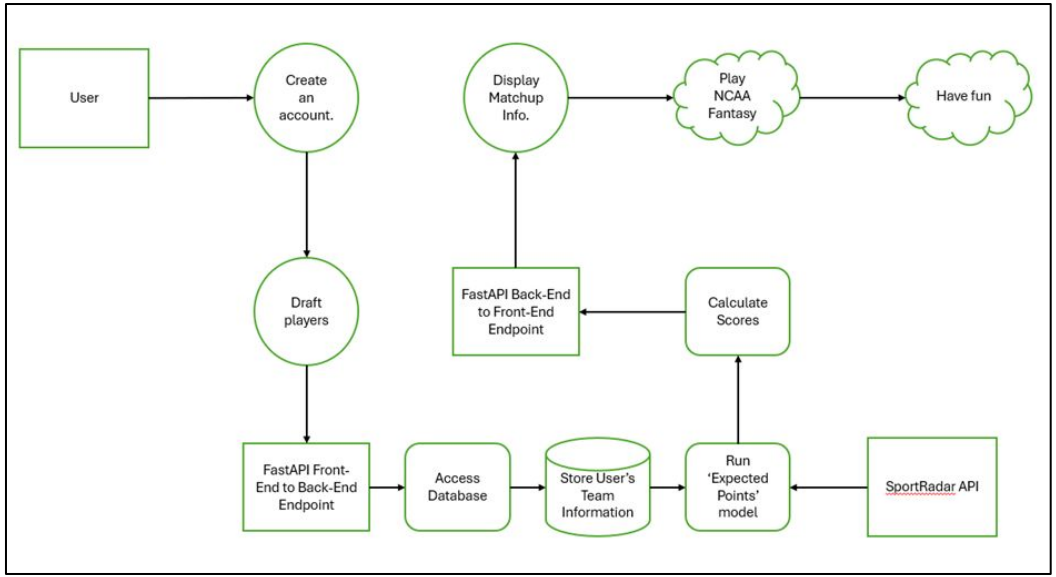
The project consists of creating a Fantasy-like game within a web-application that utilizes NCAA (college) athletes. This application would be geared towards the intersection of college football fans who also play NFL Fantasy Football (mostly college-educated males between 18-34). The application will use a linear regression AI model to take into account a specific player's height, weight, position, current team, and current opponent, and output an expected number of ‘Points’ (based on statistics like yards gained, points scored, etc.) that the player will accrue for any given game, given historical data from past games. Scoring will depend on whether a specific player exceeds the expected points for a player of the same approximate build, playing the same position, against the same team.

1	As a user of CSP, I want to be able to login to the application so I can actively use the application
2	As a user of CSP, I want to be able to register for an account to the application so I can use the application as a new user
3	As a user of CSP, I want to be able to reset my password for the application so I can use the CSP if I forget my password
4	As a user of CSP, I want to be able to manage my account so I can make my account reflect my needs
5	As a User of CSP, I want view my leagues so I can see information for each league individually, make changes, or leave my leagues
7	As a User of CSP, I want to manage my team in a specific league so I can play the game competitively with my friends
8	As a LP, I want to view available players in a specific league so I can trade or drop my players for available players when I want or if a player is injured
9	As a LP, I want to view current rankings/standings in a specific league so I can know how I am doing and if there are changes I need to make for my team to succeed
10	As a LP, I want to view previous, current, and future matches of a league to better understand historic and future data for MT management

User Stories







Design Diagrams

Project Constraints

- Dependency on 3rd party APIs and libraries
- Legal use of data and rules/laws regarding the NCAA and student athletes
- Social constraints with new experience and potential involvement of gambling/betting
- Diversity and cultural impact based on availability of the application and accessibility within the UI

Project Progress - Current State

Client:

- UI/UX drafted for mobile
- Mobile UI/UX initial implementation
- Application architecture and routing plans initial implementation
- Firebase project created

Server:

- FastAPI initially implemented for localhost
- SportsRadar API functional, modified endpoints created.

Expected Accomplishments

- Early version of a client designed and developed
- Models designed for Firestore implementation
- Login pages designed for Firebase Authentication Implementation
- Initial connections with SportsRadar, FastAPI, hosted client

Division of Work

Juan - Backend:

- FastAPI development
- Integrate SportsRadar into FastAPI
- Develop linear regression AI model

Jordan - Frontend:

- UI/UX Design and implementation of College Sports + client
- Deployment of College Sports +

Plans for Expo

We intend to have a working mobile and web application demo-able at expo allowing users the ability to create or join a league, view players, view their team, modify their team, and experience a draft using our AI predictions