

Proposal:

Team member Braxton LaNois currently works in data analytics for the Golden State Storm, an expansion tackle women's football team in the WNFC, located in the Bay Area. Braxton has experienced significant frustration with the current website that hosts and reports the WNFC statistics, Hosted Sports. The current DBMS has flaws such as displaying data as non-copyable, non-pasteable PNGs; no search function; reporting only league-level and team-level statistics; displaying only raw count-based metrics without rate-based metrics; unsorted data; and more. This makes performing analysis on the data incredibly frustrating, not just for Braxton but for data analytics teams league-wide.

The proposed project would use current and historical player and team data to build a new website and database that better meet the needs of both front office officials and fans. This would include redesigning everything from a more ergonomic website layout to new search and sort functions and custom statistics not currently supported by hosted sports.

The proposed plan for this project is to acquire data via the WNFC through Braxton and manually transcribe any data Braxton cannot readily obtain in a timely manner. Following this, we will design and model our database schema, which we will build with MySQL. We will then build our API in Python and our front-end website in whatever team members ultimately feel comfortable building it in, as this is where we have the least experience. For the sake of our proposal React seems the most likely candidate. The free tool offerings of AWS or Microsoft Azure will likely be sufficient for hosting.

This project will be exceptionally useful for the WNFC which is a part of the reason that we believe that it is both important and interesting. The WNFC is a leader in bringing equality in women's sports. The league has been growing through discussions with the NFL and partnerships with major brands like Dove Soap to expand support and create avenues not only for involving women in coaching and front office roles in football but also for participation, as historically, football has lagged behind other major American sports in women's participation. Supporting the WNFC in its professional growth is an opportunity to advance women's sports as a whole. We believe and hope that the belief is shared that equality across genders is considered an important issue. We further posit that sports, particularly in their role as a forward-facing pillar of personal excellence in popular media, are an important battleground for equality.

This project is technically interesting on two ends. The first is that the database design needs to be expansive in order to support the interests of multiple parties. The database must support the provision of essential statistics in an easily accessible way for front office stakeholders while avoiding bloating the database with unnecessary information that should be processed by and for individual teams, which is not relevant to the broader user base of sports viewers who are clicking in to learn about their favorite teams. This involves making real-world-relevant choices to balance performance and usability with expansive functionality. The second end of this project is in the expansiveness of the entire project. It is a full-scale design project, spanning the

backend database design (where we will build the schema from the ground up) and both the API and front-end software. We hope you will find our project as interesting as we do.