

Capstone Project Proposal

Title: Flag Football Player Performance & Injury Tracking System

As part of my MS-CISBA capstone, I propose to develop a Flag Football Player Performance & Injury Tracking System. This project will serve as a synthesis of key curricular areas including Software Systems (SS), Business Analytics (BA), Data Management (DM), and Cybersecurity and Networking (CN). The idea for this project stems from my interest in sports and wellness, and my experience playing flag football during my time as a student. I wanted to create something practical, yet simple enough to showcase the technical skills I've gained throughout this program.

The core purpose of this project is to build a system that captures, analyzes, and visualizes player performance metrics (such as touchdowns, yards run, passes) alongside injury records (frequency, recovery time, type of injury). The system will allow team managers or coaches to identify trends, flag players at risk for recurring injuries, and track overall team performance throughout the season. For the prototype, I will use simulated data to demonstrate how this would work in real life.

From a Software Systems standpoint, I will design a simple user interface (Excel or Python-based) to input and manage player data. For Business Analytics, I'll clean and analyze the data to highlight trends in performance and injuries, such as most active players, high-risk periods, or commonly injured body parts. Data Management will be addressed by creating a secure backend for storing and retrieving structured player data using SQL or CSV files. Lastly, the Cybersecurity aspect will involve implementing basic data protection strategies such as access controls and outlining how sensitive data (like injury reports) would be protected in a fully developed version. I'll also include a brief simulated threat scenario to show my understanding of risk management.

Overall, this project reflects how data and systems can be applied to solve everyday challenges even in recreational settings. It's a meaningful way for me to demonstrate not just what I've learned, but how I think: practically, strategically, and creatively. I'm excited to bring together my personal interests and professional training to build something thoughtful, useful, and representative of my growth in the program.