Morgan Bergen

Professor Huabo Lu

CS 598 Senior Design Project I

15 September 2024

Clarity Advanced Machine Learning for Nutritional Analysis and Healthcare Management

Clarity is an interoperable web and mobile application that utilizes machine learning to analyze the nutritional content of captured meals, providing a comprehensive health management tool, along with data extraction capabilities for healthcare providers. Designed to deliver real time dietary insights to transform the way individuals manage their chronic conditions, nutrition, performance, and overall health. Interacting with the application requires users to register, enter essential health information, and upload images or scan barcodes of their meals. The core functionalities that are derived from these requirements include dashboards containing nutritional analysis and insights, personalized dietary recommendations, health monitoring and trend analysis, disease risk management, wearable integration, and data sharing with healthcare providers.

Group Name – CJM, Group Formation - Christal Shaner, Jason Heitman, Morgan Bergen Christal Shaner's excperience includes JavaScript, React.js, C++, Python, F#, SQL, R, PHP, Prolog, Material UI, Git. Along with experience as a Software Engineer at Ennovar & Web Developer at McCurdy Real Estate & Auction, LLC. Jason Heitman's experience include C++, F#, SQL, Linux. Morgan Bergen's experience include TypeScript, C, x86 Assembly, C++, Python, Solidity, Haskell, Verilog HDL, git, bash, zsh. Along with experience as a Software Engineer Intern at Ripple Labs in NYC. Link to Github Profile's - @ChristalShaner, @MorganBergen, @BlazingEmerald.