graph TD

    %% Styling classes

    classDef entity fill:#f9f,stroke:#333,stroke-width:2px,color:#000,font-weight:bold;

    classDef process fill:#6fa8dc,stroke:#084c61,stroke-width:2px,color:#fff,font-weight:bold;

    classDef datastore fill:#ffd966,stroke:#bf9000,stroke-width:2px,color:#000,font-weight:bold;

    %% External Entities

    User[User]:::entity

    Frontend[Frontend - ReactJS]:::entity

    %% Processes

    ExpressAPI[Express API Server]:::process

    PythonAIMicroservice[Python AI ML Microservice]:::process

    StoreData[Store Data Process]:::process

    %% Data Store

    Database[(MySQL Database)]:::datastore

    %% Data Flows

    User -- Inputs Health Data --> Frontend

    Frontend -- Sends Health Data --> ExpressAPI

    ExpressAPI -- Forwards Data --> PythonAIMicroservice

    PythonAIMicroservice -- Returns Prediction --> ExpressAPI

    ExpressAPI -- Sends Prediction + Input Data --> StoreData

    StoreData -- Saves Data --> Database

    ExpressAPI -- Sends Prediction Result --> Frontend

    Frontend -- Displays Prediction --> User

