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Required Skills:

Java Development, Python Development, Project Management, Communications

Preferred Team Communications:

Skype, Google Drive, etc

Data Sources:

A sample dataset from the Emory clinical data warehouse (CDW) will be provided.

Other Items:

Project has timezone flexibility. Mentors and students will determine a good time for virtual meeting.

A FHIR-enabled Streaming Sepsis Prediction System for Emergency Departments

Sepsis is among the leading causes of morbidity and mortality in critically ill patients and is the most expensive condition by healthcare spending. The major tenet of sepsis care is prompt recognition and initiation of treatment. Recent studies have shown that survival benefit from early intervention in sepsis is almost entirely dependent on time-to-first antibiotics. However, no clinically validated system exists for accurate, real-time prediction of sepsis onset in the Emergency Departments.

Project Objectives

To design a cross-platform Sepsis Prediction and Alert Application..

Successful project

We propose a FHIR-enabled streaming analytic application that is capable of interfacing with a FHIR server, calculates the qSOFA score in real-time and simultaneously for multiple patients, and provides visualization of temporal progression of qSOFA and other risk factors for sepsis in the emergency departments..

Intellectual Property: TBD