Practical Challenges of Progressive Data Science in Healthcare

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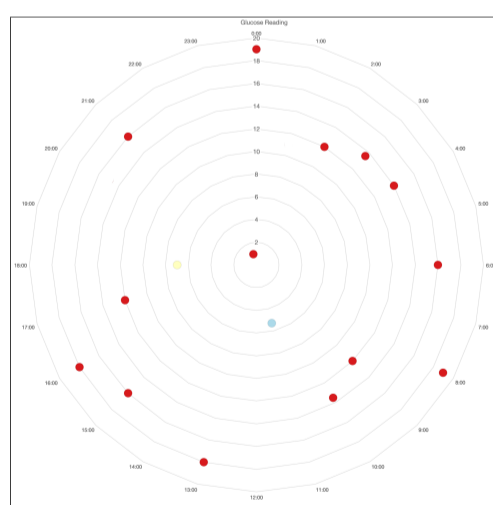Carleton University

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The healthcare system collects extensive data, encompassing patient information, clinical measurements, and home-monitored health metrics. However, the process of creating interactive data visualization can be rather challenging due to the size and complexity of these datasets.

Here, we reflect on our experiences with our health data visualization projects employing a progressive data science approach.
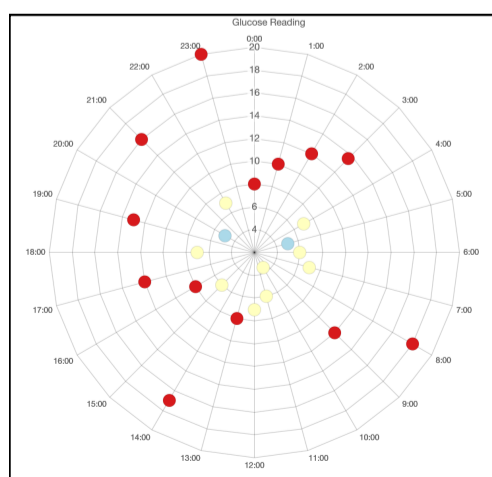
PATIENT-GENERATED DATA VISUALIZATION

We proposed a progressive data visualization representing the patient glucose data collections for providers to review during clinical visits.
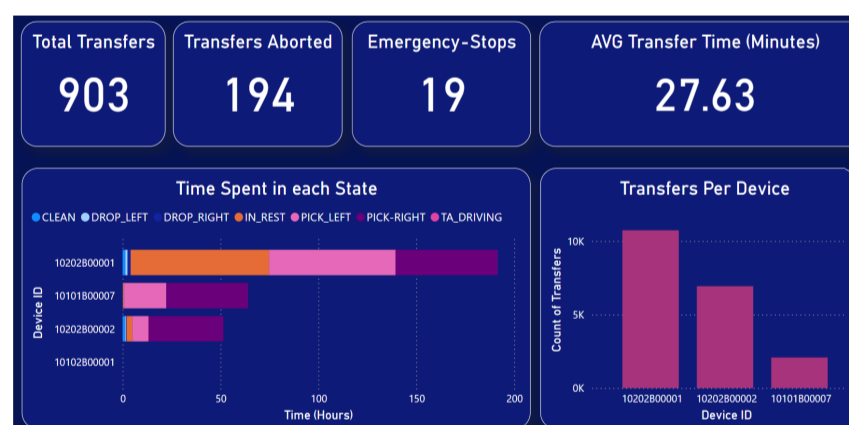

Glucose data visualizations in progress
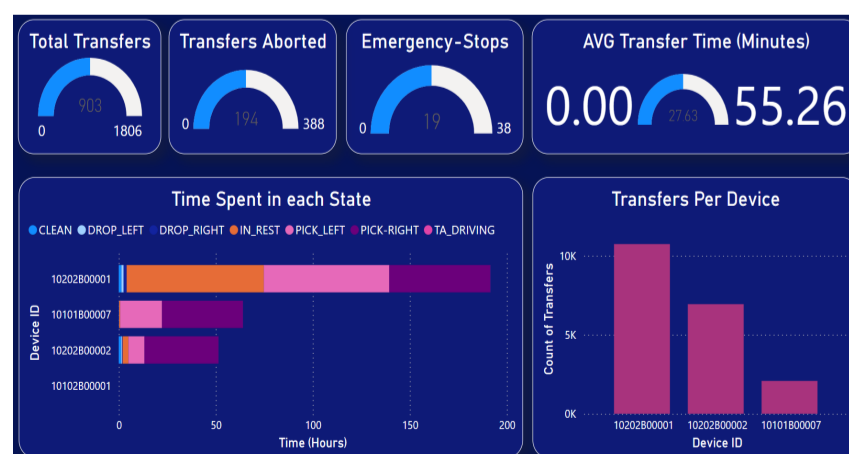
Glucose data visualizations finalized.

HOSPITAL BED TRANSFER STATES VISUALIZATION

We proposed a progressive data visualization system representing the beds' sensor log files generated by smart bed transfers to enhance delivery and operational efficiency.

Hospital bed transfer visualization dashboard while the calculations in progress.

Hospital bed transfer visualization dashboard after the calculations are finalized.

HealthVis FUTURES