

## CUSTOMER SPOTLIGHT

# Accelerating Insights to Improve Pediatric Care at a Top Ranked Children's Hospital

### SUMMARY :

A top-ranked children's hospital established a unified, enterprise-grade environment for its Advanced Analytics team, accelerating the safe and effective evaluation and deployment of critical AI models for clinical decisions, such as forecasting sepsis. This transition has substantially quickened the time from model development to deployment and enabled the team to build a self-service app, SPC ChartR, which has reduced the time for creating essential quality monitoring charts by 55%.



### ABOUT :

Consistently ranked among the top children's hospitals by U.S. News & World Report, providing access to more than 1,200 pediatric physicians and allied health practitioners across more than 60 pediatric specialties.

### INDUSTRY :

Life Science & Healthcare

### SIZE :

12,000+ Employees

### TECHNOLOGY USED :

Posit Team



# The Challenge:

## Fragmented Tools and High-Stakes Decision Making

The Advanced Analytics team struggled with fragmented tools like SAS and Stata, which slowed the expansion into operational data science. This bottleneck hindered their ability to quickly govern and deploy critical models, such as sepsis forecasting, required for high-stakes clinical decisions.

- **LEGACY BOTTLENECKS:**  
Proprietary tools limited the flexibility and speed required for modern machine learning and operational data science.
- **MANUAL QUALITY MONITORING:**  
Creating Statistical Process Control (SPC) charts was a time-consuming manual process in Excel, restricting quality monitoring to a few expert users.



# The Solution:

## Enterprise-Grade AI Evaluation

The hospital used Posit Team to unify R and Python for model development and vendor vetting. By hosting interactive dashboards on Posit Connect, the team now conducts real-time sessions with clinicians to test thresholds, significantly accelerating the path from development to patient care.

- **AUTOMATED QUALITY TRACKING:**  
The team developed “SPC ChartR,” a self-service app that automates infection and readmission rate monitoring, reducing chart creation time from 11 minutes to 5 minutes.
- **EQUITABLE AI MONITORING:**  
Using Posit Connect’s scheduled reports, the hospital now continuously monitors model performance across race, language, and ethnicity to ensure equitable healthcare results.

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