

TIBCO and NUHS improve patient diagnoses with healthcare AI in Singapore

September 7, 2021 | News

Companies collaborate to enhance data analytics and integrate patient data on NUHS' ENDEAVOUR AI platform



TIBCO Software Inc., a global leader in enterprise data, announced a collaboration with Singapore's National University Health System (NUHS) to enhance the future of healthcare through the use of data analytics and artificial intelligence (AI) on NUHS' ENDEAVOUR AI platform. Implementations of the technology range from shortening hospital patients' length of stay to helping identify breast cancer.

NUHS employs TIBCO technology, including TIBCO BusinessWorks™, TIBCO® Streaming, TIBCO® Messaging, and TIBCO Spotfire®, in its ENDEAVOUR AI platform to support the integration of real-time medical data from Electronic Medical Record (EMR) systems. With this platform, multiple complex AI tools integrate to provide aggregated predictions and visualization of insights, enhancing patient care and services.

"We leverage the capabilities of AI to improve healthcare practices and outcomes, enabling clinical practitioners to make faster, more accurate diagnoses and precise treatments," said Associate Professor Ngiam Kee Yuan, group chief technology officer, NUHS. "Healthcare institutions aggregate vast quantities of data, but most of the data collected is only analyzed retrospectively. TIBCO technology enables the NUHS ENDEAVOUR AI platform to stream data in real-time, feeding live data into AI models that produce actionable insights on the fly."

NUHS plans to deploy as many as 150 distinct AI and automation tools as microservices on ENDEAVOUR AI. These AI tools incorporate multi-domain patient information, such as demographics, text, images, lab data, and medications prescribed to provide a synthesis of a patient's condition. This translates into significant cost savings, from a patient's care at admission, to predict a patient's length of stay, therefore optimizing scarce bed resources.

Among other projects, the NUHS platform improves breast cancer detection rates, predicting the risk of breast cancer in women admitted to the hospital, regardless of the reason for admission. The AI tool instantly identifies risk factors for breast cancer and, if needed, the patients concerned are referred for a mammogram and specialist treatment.

"The collaboration with NUHS leverages our respective strengths in data, analytics, and network connectivity to help organizations navigate the complex transition to a value-based healthcare system," said Erich Gerber, senior vice president, APJ and EMEA, TIBCO.