CO-OP Performance Analyst,

Enhanced metrics visualization by leveraging DATADOG to visualize software backend data from customer performance counters and heartbeats, encompassing metrics such as memory usage, lock rate, and CPU time. Incorporated moving averages and long-term trending lines for improved trend analysis, alongside implementing cumulative bar plots to spotlight recent query logs and top user/workbook usage, improved time efficiency, enabling faster and more informed decision-making for optimizing system performance.

Conducted correlation analysis on multivariate time series data, first employing cointegration to assess long-term relationships between variables. Calculated Pearson, Spearman, and Kendall coefficients to address data size limitations, facilitating robust insights within a short one-month timeframe.

Executed correlation analysis for multivariate time series data, applying cointegration to assess long-term relationships between variables. Employed statistical measures including Pearson, Spearman, and Kendall coefficients to overcome data size limitations and gain robust insights.

Employed 5 different feature extraction models including Holt-Winters and wavelet decomposition on 10 different metrics within a one-month timeframe to conduct correlation analysis. Utilized Granger causality, transfer entropy, and LSTM models on normalized raw data and flux-features to infer causal relationships between metrics, with transfer entropy yielding the most interpretable results. These findings were instrumental in defining the intricate relationships among the metrics.

Implemented multivariate time series clustering for customer data spanning 2016 to present, utilizing 27 diverse statistical features and employing 6 distinct clustering methods. Evaluated outcomes using 3 different scores to validate effectiveness, resulting in agglomerative clustering as optimal with regards to both performance metrics and real-world applicability, providing accurate customer segmentation.