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Large Time Series Models: Industrial Frontier Research and Global Supply Chain Applications

Large Time Series Models (LTSMs) have emerged as a transformative force in industrial research, demonstrating substantial potential across diverse applications. Time series data, ubiquitous in industrial contexts, plays a particularly critical role in supply chain management, where dynamic and complex scenarios demand robust forecasting solutions. LTSMs, such as TimeMoE, address key challenges in supply chain forecasting by effectively handling data sparsity, adapting to rapid pattern shifts, mitigating cold-start issues, managing long-tail distributions, and enhancing prediction accuracy through advanced neural architectures. By capturing intricate temporal patterns and non-linear relationships, these models enable more precise demand and supply predictions, ultimately optimizing decision-making and operational efficiency in global supply chains.