Manuscript ID : 00001-88766

Source ID : 00000084

International Journal of Engineering and Technology Research

Volume 8, Issue 1, January-December 2023, Pages 26-37, Page Count - 12

DEVELOPING EFFICIENT SERVER MONITORING SYSTEMS USING AI FOR REAL-TIME DATA PROCESSING

Sagar Vishnubhai Sheta [(1)]

[(1)] Software Developer, 3 Desire Networks & Solutions India Pvt. Ltd, India.

Abstract

This paper explores the development and implementation of AI-based server monitoring systems aimed at optimizing real-time data processing. Traditional server monitoring systems, reliant on static thresholds and manual oversight, often struggle to handle the scale and complexity of modern server environments. In contrast, AI-driven monitoring leverages machine learning and deep learning algorithms to analyze large volumes of data, enabling precise anomaly detection and predictive maintenance. The proposed AI-based system architecture incorporates components such as real-time data collection, preprocessing, and model deployment, which together enhance response times, improve anomaly detection accuracy, and reduce system downtime. This study discusses the comparative advantages of AI-based monitoring over traditional methods, highlights performance and efficiency gains, and addresses key considerations for scalability and adaptability in diverse server environments. The findings underscore AI's role in advancing server monitoring from reactive to proactive management, providing a foundation for future research in autonomous monitoring solutions.

Author Keywords

AI-based monitoring, server monitoring, real-time data processing, machine learning, deep learning, anomaly detection, predictive maintenance.

ISSN Print: 2347-8292
ISSN Online: 2347-4904
Source Type: Journals
Document Type: Journal Article
Publication Language: English
DOI:
Abbreviated Journal Title: IJETR
Access Type: Open Access
Publisher Name: IAEME Publication
Resource Licence: CC BY-NC
Major Subject: Physical Sciences
Subject Area classification: Computer Science
Subject area: Information Technology and Cyber Security
Source: SCOPEDATABASE

Reference