

Machine learning for developers and administrators

Developing and managing computing systems is complex due to rapidly changing technology, evolving requirements during development, and ongoing maintenance throughout their lifespan. Significant post-deployment maintenance includes troubleshooting, patching, updating, and modifying components to meet new features or security needs. Investigating unusual events may involve reviewing system descriptions, administrator archives, administrative orders, official recommendations, and system logs. The primary goal is to keep the investigation time within reasonable limits. The machine learning system, Retrieval Augmented Generation (RAG), has been steadily advancing since around 2021. RAG can be regarded as a form of knowledge transfer. In the case studied, large computing systems are recognized as the application point of RAG, which includes a large language model (LLM) as a collaborator for the development team. This approach offers advantages during the development process of computing systems and in the exploitation phase.