Real-Time AWS Resource Surveillance with Reporting and Dashboard Solution

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Abstract*: Cloud computing, which offers cost-effectiveness, scalability, and flexibility, has become a crucial component of contemporary company operations. However, moving to the cloud presents a new set of difficulties, one of which is security. Continuous monitoring and auditing of cloud environments is critical for organizations to detect attacks, identify vulnerabilities, and verify adherence to security requirements. Because it is scalable, flexible, and affordable, cloud computing has emerged as the mainstay of many businesses in today's digital environment.*

But as the use of cloud services grows, so does the necessity for strong security measures to safeguard confidential information and guarantee adherence to industry rules. Conventional methods for security audits and monitoring are frequently labor-intensive, manual, and prone to human mistake. They are not agile enough or have the real-time information necessary to efficiently.

Keywords: Cloud Computing, Auditing, Cloud Security, User-friendly Dashboard, AWS (Amazon Web Services), S3(Simple Storage Service), EC2(Elastic Compute Cloud), Amazon CloudWatch, Isolation Forest, AI(Artificial Intelligence, ML (Machine Learning), Python, API(Application Programming Interface), Microsoft Power BI

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DOI: 10.48175/IJARSCT-15936

ISSN
2581-9429
IJARSCT

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