

# A Review on Cloud Security: Challenges, Solutions, and Innovations

Lucky Gupta, Apoorv Chaudhary, Yash Sharma

Department of Computer Science & Application

Sharda School of Engineering & Technology, Sharda University, Greater Noida, India

**Abstract:** *Cloud computing has become one of the fastest growing and most advance technological evolutions providing companies and individuals the means to scale resources, as well as being flexible and saving cost. While these advantages come with high security risks such as data breaches, unauthorized access, and service disruptions respectively. We review and compare five recent studies that cover aspects of cloud security from encryption, to threat detection, to multi-cloud challenges, to quantum resistant solutions. The papers offer useful information about the emerging security techniques and frameworks. The methodologies, results, limitations and areas for future discussion are presented in a comparative analysis.*

**Keywords:** Cloud Security ,Threat Detection, Quantum-Resistant Encryption, Multi-Cloud Security