Perceptions of Cloud Computing Security

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Abstract*: This study explores how individuals perceive the security of cloud computing services through a survey conducted in February 2025 with 72 participants. The research examines attitudes toward data safety, trust in cloud providers, and reactions to potential security breaches. Using a structured dataset derived from survey responses, we applied a machine learning model to predict the likelihood of discontinuing cloud services following a breach, based on factors like perceived safety, trust, and preferred security measures. Findings were visualized through a confusion matrix, classification report, line graph, and scatter plot. Results indicate a cautious trust in cloud systems, with security measures like encryption and multi-factor authentication highly valued. The study underscores the delicate balance between cloud computing's benefits and its security risks, offering insights for providers and businesses.*

Keywords: cloud computing