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OPTIMIZING GENERATIVE ADVERSARIAL NETWORKS FOR CLOUD-BASED HEALTHCARE APPLICATIONS

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ABSTRACT

The integration of Generative Adversarial Networks (GANs) with cloud computing has shown significant potential for revolutionizing healthcare applications by improving data generation, medical imaging, and patient data analysis. This research paper explores optimization strategies for deploying GANs on cloud platforms to enhance the efficiency, scalability, and performance of healthcare solutions. The study focuses on addressing computational challenges, data privacy concerns, and network latency while proposing innovative techniques for fine-tuning GANs in the context of healthcare. By utilizing cloud resources, we demonstrate how the computational power of cloud platforms can enable the effective training and deployment of GAN models in healthcare applications. Through comprehensive experiments and performance evaluations, the paper highlights the benefits and challenges of cloud-based GAN optimization, providing insights into its practical applications in real-time healthcare environments.

KEYWORDS: *Generative Adversarial Networks, Cloud Computing, Healthcare Applications, Data Privacy, Medical Imaging, Network Latency, Optimization Strategies, Computational Efficiency*

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