

# AI to Transform Veterinary Science

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**Abstract:** *Veterinary medicine is a broad and developing profession that covers topics such as companion animal health, zoonotic infections, agriculture, and community health. The potential for better animal healthcare and diagnostics has sparked a growing interest in the application of computer vision (CV) in the veterinary science discipline in recent years. This research investigates the extent and potential applications of CV techniques, with a focus on deep learning approaches, for medical imaging, thermal video analysis, alignment diagnostics, and post-surgery pet monitoring in clinical settings. Salient Object Deduction (SOD), R-CNN, and Convolutional Attentive Adversarial Network (CAAN) applications are examined in this study to demonstrate the important roles that CV plays in addressing animal healthcare issues and enhancing overall health.*

**Keywords:** Computer Vision, Veterinary Science, Deep Learning, Object Detection