

AI Based Wildlife Recognition System

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Abstract: *Wildlife recognition plays a crucial role in biodiversity conservation, ecological research, and wildlife monitoring. Traditional methods are time-consuming and error-prone, necessitating automated solutions. This research explores the implementation of an AI-based wildlife recognition system using the Residual Network (ResNet) model. The system classifies various wildlife species based on image inputs, improving accuracy and efficiency in wildlife monitoring. By leveraging deep learning techniques, the system enhances real-time species identification and minimizes human intervention, ensuring more reliable data collection for conservationists and researchers. Additionally, this study aims to improve scalability and deployment across various platforms, allowing integration with mobile applications, cloud services, and IoT-enabled wildlife monitoring systems. The proposed model is trained on a diverse dataset to ensure robustness in real-world applications.*

Keywords: Wildlife Recognition, AI, Deep Learning, ResNet, Image Classification, Conservation