

Assessment of Multi-Model Approach for Drone Security

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Drones, while critical for numerous applications, are particularly susceptible to a variety of cyber threats. Traditional single-model security solutions often present inherent weaknesses, creating specific attack surfaces that can be exploited by adversaries. This paper aims to explore a multi-modal approach to drone security, addressing these vulnerabilities through system diversity. By integrating a range of models, each leveraging different modalities such as sensor data and computer vision and training them on a combination of real-world inputs and synthetically generated images within simulated environments, we propose a more robust and adaptive security framework. This approach is designed to improve threat detection capabilities and overall system resilience, enabling drones to better counter and adapt to evolving cyber-attacks.

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