

Peer Review

Review of: "Optimizing Edge AI: A Comprehensive Survey on Data, Model, and System Strategies"

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This survey is a valuable contribution to the Edge AI field, offering a well-structured and comprehensive review. With revisions to deepen critical analysis, include visual comparisons, and expand on emerging trends, it will serve as an essential reference for researchers and practitioners.

Areas for Improvement:

1. Critical Analysis:

While the survey summarizes techniques, deeper critical analysis is needed. For example:

In the data augmentation section, expand on methods to mitigate biases introduced by synthetic data.

In the Neural Architecture Search (NAS) section, discuss trade-offs between reinforcement learning and evolutionary approaches in resource-constrained settings.

2. Security Advancements:

Expand the security subsection to include recent standards (e.g., ISO/IEC 27001 adaptations for Edge AI) or emerging techniques like homomorphic encryption.

3. Emerging Technologies:

Discuss the role of neuromorphic computing, spiking neural networks, or TinyML in future Edge AI systems to enhance the "future trends" section.

Writing and Formatting:

Grammatical Issues:

Address minor grammatical issues (e.g., revise "local level" to "edge devices" for clarity).

Citation Formatting:

Ensure consistent citation formatting.

Repository Accessibility:

Verify the accessibility and content of the GitHub repository link.

Declarations

Potential competing interests: No potential competing interests to declare.