

Peer Review

Review of: "GenAI at the Edge: Comprehensive Survey on Empowering Edge Devices"

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Based on the content, scope, and quality of the article entitled "GenAI at the Edge: Comprehensive Survey on Empowering Edge Devices," here is a formal review recommendation for minor revision.

- **Relevance and timeline:** The paper addresses a highly relevant and timely topic, optimizing generative AI models for deployment on edge devices. The need for such a comprehensive survey is well-justified, and the timing is excellent given the current surge in GenAI applications.
- **Clear and Balanced Structure:** The organization into three main pillars—software optimization, hardware optimization, and frameworks—is logical and effective. However, the "Frameworks" section could benefit from more comparative analysis or empirical benchmarks.
- **Originality and contribution:** While it is a review paper, the combination of GenAI and edge deployment is original and provides valuable insights. Including a visual roadmap or a comparative matrix of techniques would further enhance its uniqueness.

Suggested improvement points:

- Add a **comparative table** summarizing key methods, metrics, and trade-offs.
- Include a **dedicated section discussing limitations and open challenges**.
- Avoid **clusters of citations without explanation**—many references are listed back-to-back without contextualization.
- Improve **linguistic consistency and style**, particularly in sentence structure and transitions.

Declarations

Potential competing interests: No potential competing interests to declare.