Special Issue

Advancements in Machine Learning for Healthcare: Innovations, Challenges, and Future Directions

Message from the Guest Editor

This Special Issue highlights the latest advancements, methodologies, and applications of ML in healthcare. Topics of interest include, but are not limited to:

- Novel ML algorithms for disease prediction and patient risk stratification;
- Explainable AI for increasing transparency in clinical decision-making;
- Federated learning techniques for privacy-preserving medical data analysis;
- Real-time decision support systems integrating AI into clinical workflows;
- Deep learning applications in medical imaging, genomics, and wearable health monitoring;
- Challenges and ethical considerations in deploying AI-driven healthcare solutions;
- Integration of natural language processing (NLP) for automated clinical documentation and decision support;
- AI-driven drug discovery and personalized treatment optimization;
- Advanced data preprocessing techniques for handling imbalanced medical datasets;
- The role of reinforcement learning in optimizing healthcare interventions and resource allocation.

We look forward to receiving your contributions and working together to create a valuable resource that will benefit researchers, scholars, and practitioners alike.

Guest Editor

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