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Review of Machine Learning and Artificial Intelligence (ML/AI) for the Pediatric Neurologist

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Abstract

Artificial intelligence (AI) and a popular branch of AI known as machine learning (ML) are increasingly being utilized in medicine and to inform medical research. This review provides an overview of AI and ML (AI/ML), including definitions of common terms. We discuss the history of AI and provide instances of how AI/ML can be applied to pediatric neurology. Examples include imaging in neuro-oncology, autism diagnosis, diagnosis from charts, epilepsy, cerebral palsy, and neonatal neurology. Topics such as supervised learning, unsupervised learning, and reinforcement learning are discussed.

Keywords: Artificial intelligence; Machine learning; Natural language processing; Pediatric neurology; Supervised learning; Unsupervised learning.

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