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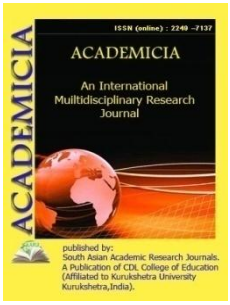

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AN OVERVIEW OF MACHINE LEARNING FROM THEORY TO ALGORITHMS

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ABSTRACT

The present SMAC (Social, Mobile, Analytical, and Cloud) technological trend points to a future in which intelligent machines, networked processes, and big data are all combined. The enormous quantity of data produced by this virtual environment is hastening the adoption of machine learning solutions and techniques. Computers can mimic and modify human-like behaviour thanks to machine learning. Each interaction, each action done, becomes something the system may learn and utilize as experience for the next time using machine learning. This paper provides an introduction of a data analytics technique that allows computers to learn and do what people do naturally, namely, learn from experience. It covers the fundamentals of machine learning, including definitions, terminology, and applications that explain what, how, and why it works. Machine learning's technological roadmap is explored in order to better comprehend and validate its potential as a market and industrial practice. The main goal of this paper is to explain why machine learning is the way of the future.

KEYWORDS: *Algorithms, Ensemble Learning, Instant Learning, Machine Learning, Supervised Learning, Unsupervised Learning.*

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