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(54) Title of the invention : AN INTELLIGENT DATA AUGMENTATION SYSTEM FOR SMALL-SAMPLE MACHINE LEARNING MODELS

(57) Abstract :

An intelligent data augmentation system (100) for small-sample machine learning models comprises a synthetic data generator (110), a quality validation module (120), an augmentation selection optimizer (130), a model feedback loop (140), and an adaptive controller unit (150). The system generates high-quality synthetic data, validates it rigorously, optimizes augmentation strategies, and dynamically adapts to model feedback, significantly improving learning outcomes in small-data scenarios.

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