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(57) Abstract :
The invention discloses an automated image classification system (100) utilizing deep neural network models for accurate and scalable categorization of images. The system includes input image data module (110), preprocessing unit (120), neural network classifier (130), adaptive training module (140), classification output module (150), and incremental learning mechanism (160). It ensures robust preprocessing, adaptive training, and incremental learning, enabling high accuracy, reduced manual intervention, and real-time applicability across domains such as healthcare, surveillance, agriculture, and autonomous vehicles.

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