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# (57) Abstract:

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SELF-ADJUSTING NEURAL NETWORK SYSTEM FOR SUPERIOR IMAGE RECOGNITION ACCURACY AND EFFICIENCY ABSTRACT The self-adjusting neural network system 100 enhances image recognition accuracy and efficiency through a dynamic and adaptive approach. It features a neural network architecture 110 that processes input images and produces predictions. An adaptive adjustment module 112, linked to the neural network, continuously modifies network parameters based on real-time performance metrics provided by a performance evaluation unit 114. This unit assesses the system's accuracy and efficiency and feeds back to the adaptive adjustment module. Integrated with this module is an optimization engine 116 that fine-tunes parameters to improve image recognition outcomes. The system includes a data input interface 118 for receiving images and a user interface 120 for displaying performance metrics and enabling user-driven adjustments. This design ensures optimal performance and adaptability, enhancing overall image recognition capabilities. FIG. 1

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