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(57) Abstract :
The computer-based problem classification system (100) streamlines problem resolution with its key components: a user interface (114) for receiving natural language problem descriptions, a data preprocessing module (104) for preparing the input descriptions, and a feature extraction component (106) utilizing NLP algorithms. It employs a supervised learning training phase (108) with labeled data and a model building component (110) to create a versatile AI model. In the classification phase (112), the AI model accurately categorizes problems based on learned patterns and associations, revolutionizing problem-solving efficiency. Furthermore, this system supports continuous learning and adaptation, leveraging techniques like online learning and active learning to incorporate new data and maintain the AI model's relevance over time. This multifaceted system enhances problem-solving efficiency while ensuring the adaptability and accuracy of its classification capabilities.

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