## Developing an AI-Driven Application for Real-Time Emotion Recognition from Human Vocal Patterns

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**Abstract :** This study delves into the development of an artificial intelligence application designed for real-time emotion recognition from human vocal patterns. Utilizing advanced machine learning algorithms, including deep learning and neural networks, the paper highlights both the technical challenges and potential opportunities in accurately interpreting emotional cues from speech. Key findings demonstrate the critical role of diverse training datasets and the impact of ambient noise on recognition accuracy, offering insights into future directions for improving robustness and applicability in real-world scenarios. **Keywords :** artificial intelligence, convolutional neural network, emotion recognition, vocal pattern

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