
LIST OF TERMS

Terms	Definition
Depression Detection	The process of identifying signs and symptoms of depression using various methods including clinical interviews, questionnaires, and computational techniques.
Meta-heuristic Algorithm	A sophisticated strategy or technique employed to discover, generate, or choose a heuristic (a partial search algorithm) capable of delivering a sufficiently effective solution to an optimization problem, particularly when facing incomplete data, imperfect information, or restricted computational resources. Examples of these strategies include simulated annealing, genetic algorithms, and Grey Wolf Optimization (GWO).
Classes	Categories or groups in a dataset that represent different types of data points or labels.
Fine-tuning	The process of taking a pre-trained model and making small adjustments to improve its performance on a specific task.
Transformer	A form of neural network architecture that utilizes self-attention mechanisms for handling sequential data. It is extensively applied in tasks related to natural language processing.
Optimization Algorithm	A method used to find the best possible solution or outcome in a given problem space.
Hyperparameters	Parameters in machine learning models that are set before the learning process begins, such as batch size, learning rate, and the depth of layers in a neural network.
Pre-trained Model	A model that has been previously developed on an extensive dataset and is adaptable for specific tasks.
Epoch	A single full cycle through the entire training dataset during the training process of a machine learning model.
Overfitting	A scenario where a machine learning model excels on the training data but struggles with new, unseen data due to excessive complexity.