

Classifying Postures with Teachable Machine Pose Model

This project explores the potential of using a machine learning model to recognize and classify various human postures, such as Praying, Crossing arms, Nodding, and Waving. By leveraging the capabilities of Teachable Machine, a web-based tool that makes machine learning accessible and easy to use, we aim to create a system that can interpret these postures in real-time, paving the way for more intuitive and interactive digital experiences.

Project Overview:

The core objective of this project is to develop a posture classification system that can accurately identify specific human postures from a live video feed. This system utilizes Google's Teachable Machine Pose Model, which allows users to train a model without writing a single line of code.

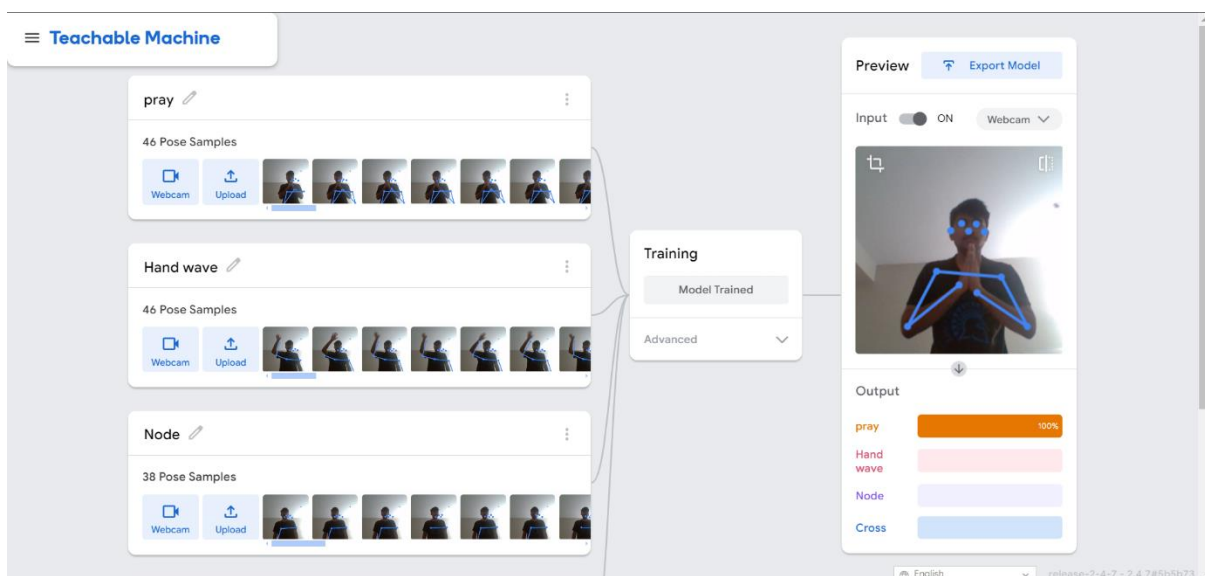
The postures we focus on include:

1. Pray: Recognizing the posture of hands joined together in front of the person.
2. Cross: Identifying when arms are crossed over the chest.
3. Nod: Detecting the motion of nodding the head, usually in agreement or acknowledgment.
4. Wave: Identifying the gesture of waving one's hand.

These postures were chosen for their commonality in everyday interactions and their potential applications in various fields, from enhancing accessibility in technology to creating more immersive gaming experiences.

Project link : <https://teachablemachine.withgoogle.com/models/3Mc3tdcWU/>

Pray prediction:



Wave Prediction:

The screenshot shows the Teachable Machine interface with three training categories: 'pray' (46 Pose Samples), 'Hand wave' (46 Pose Samples), and 'Node' (38 Pose Samples). The 'Training' panel indicates 'Model Trained'. The 'Preview' panel shows a person performing a hand wave gesture, with the model's output bar for 'Hand wave' at 100%.

Teachable Machine

pray 46 Pose Samples

Hand wave 46 Pose Samples

Node 38 Pose Samples

Training

Model Trained

Advanced

Preview Export Model

Input ON Webcam

Output

- pray
- Hand wave 100%
- Node
- Cross

English release-2-4-7 - 2.4.7#5b5b73

Nod Prediction:

The screenshot shows the Teachable Machine interface with three training categories: 'pray' (46 Pose Samples), 'Hand wave' (46 Pose Samples), and 'Node' (38 Pose Samples). The 'Training' panel indicates 'Model Trained'. The 'Preview' panel shows a person performing a nod gesture, with the model's output bar for 'Node' at 100%.

Teachable Machine

pray 46 Pose Samples

Hand wave 46 Pose Samples

Node 38 Pose Samples

Training

Model Trained

Advanced

Preview Export Model

Input ON Webcam

Output

- pray
- Hand wave
- Node 100%
- Cross

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Cross Prediction:

The screenshot shows the Teachable Machine interface with three training categories: 'pray' (46 Pose Samples), 'Hand wave' (46 Pose Samples), and 'Node' (38 Pose Samples). The 'Training' panel indicates 'Model Trained'. The 'Preview' panel shows a person performing a cross gesture, with the model's output bar for 'Cross' at 100%.

Teachable Machine

pray 46 Pose Samples

Hand wave 46 Pose Samples

Node 38 Pose Samples

Training

Model Trained

Advanced

Preview Export Model

Input ON Webcam

Output

- pray
- Hand wave
- Node
- Cross 100%

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