

# Dataset Description

This README provides a detailed description of the dataset features. Each entry represents unique facial expressions and orientations captured during specific user events.

## Feature Descriptions

### 1. Action Units (AU)

- **Description:** Discrete facial movements representing specific facial muscle contractions based on the Facial Action Coding System (FACS).
- **Features:**
  - AU01, AU02, AU04, AU06, AU07, AU10, AU12, AU14, AU15, AU17, AU23, AU24: Intensity values for each Action Unit.

### 2. BoundingBox

- **Description:** Coordinates defining the face region within the image.
- **Features:**
  - `boundingBox`: Format is `x y width height` (e.g., “75 1170 933 1907”).

### 3. Classification

- **Description:** Probabilities indicating the state of facial features such as eyes and mouth.
- **Features:**
  - `leftEyeOpenProbability`: Probability the left eye is open.
  - `rightEyeOpenProbability`: Probability the right eye is open.
  - `smilingProbability`: Probability of a smiling expression.

### 4. Contours

- **Description:** Points outlining detailed facial features.
- **Features:**
  - `contours`: Array of `{x, y}` coordinates.

### 5. File Information

- **Description:** Metadata about the data storage file.
- **Features:**
  - `fileName`: Path to the data file.
  - `gameId`: Identifier for the cognitive game session. FacePsy also implements cognitive games like Stroop and Visual Spatial Memory Flower Task.

**NOTE:** File is deleted after processing. The filename is stored during processing.

## 6. Head Euler Angle

- **Description:** Three-dimensional head orientation.
- **Features:**
  - X: Pitch
  - Y: Yaw
  - Z: Roll

## 7. Landmarks

- **Description:** Key points on the face used for tracking and analysis.
- **Features:**
  - Array of landmarks with types and  $\{x, y\}$  coordinates.

## 8. Metadata

- **Description:** Additional details about the data collection process.
- **Features:**
  - `appVersion`: Application version used for data collection.
  - `seq_id`: Unique sequence identifier.
  - `timestamp`: Time when the data was captured.
  - `triggerName`: Event or condition that triggered data recording.

## 9. PID

- **Description:** Participant identifier.
- **Features:**
  - `pid`: Unique identifier for the participant (e.g., “P24”).

## Sample Feature File

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```

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