Technical Background:

Tracking.js is a computer vision framework built on javascript, intended to classify vision based problems on a web browser. We have added a module for classifying face expressions based on EigenEmotions.

Core AI:

We use a robust Eigen decomposition based “EigenEmotions” technique by which the randomized PCA is computed on the test image extracted from the live video stream and classified based on the significant features. We train this model in Scikit-learn and use the trained model in tracking.js.

Interface:

FEBEI
Face Expression Based Emotion Identification
- Prashanth Kumar Murali, Nehra C Sashkar and Robert J Henderson

Tired of typing out emojis? Just Emote!

FEBEI is the computer vision based technology which converts your emotion to an emoji. It is javascript based and web browser centric, eliminating the need for a server.

Happy and Angry Eigen Emotions:

Results and Conclusion:

The result of this system is evaluated with the performance in OverFeat CNN and Caffe. Our goal is to create an elaborate library of emotions and submit this library as an open source plugin to Tracking.js. We also plan to improve the results with a synthesized dataset and enhance the speed of classification.

References:

1. https://tracking.js/
5. Extract from code from based code with code from dataset:
   http://www.cs.rit.edu/~emotions/spaceMotion

Face Images:

http://stackoverflow.com/questions/7025888
face-recognition-with-opencv-code-opencv/18426852