Solution to Measure Employee Productivity with Employee Emotion Detection

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Abstract

Health and safety of workers has become a top priority in modern businesses. The reason being that it will have an impact on both individual and team output. In the last few decades, automatic facial expression analysis using machine learning has emerged as a promising and bustling field of study. In this study, the system primarily evaluates the efficiency of workers and, through the detection of their emotional states, determines their levels of motivation. The task completion rate of employees is measured by the system in the first component, and the system predicts the level of satisfaction that the employees will have. In place of linear regression, this component makes use of random forest regression, which boasts a higher degree of precision than its counterpart. The performance of workers on their tasks will be evaluated periodically, about once every fifteen minutes, and the results will be shown on a dashboard. The system will pick up on the emotions of the staff members throughout the second phase of the process. These characteristics will be used to assess the level of motivation inside the organization, with the end goal of increasing overall productivity. The accuracy of this emotion detection will also be checked periodically, namely once every fifteen minutes. The following part of the process monitors the use of the PC and calculates the level of productivity. It will be possible to get an increase in productivity if one monitors and keeps track of the application usage of each employee. Final components monitor the websites that employees visit and how they use the network. This component makes it easier to generate reports based on the utilization of the internet and the network, as well as information on performance and reports that summarize website traffic. When it is fully operational as an integrated system, most businesses will rely on this system as their primary driver of success.

Keywords

Random Forest Regression, PC, Summarize, Accuracy, Motivation, Emotional, Performance, Productivity