Human Stress Detection in and through Sleep

Team Maximus

Harrison Peloquin, Hunter Sawyer, Chris Dinkins, Jackson Hanchek

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Library Installations

Explanation of Data source

Our data comes from a sleep analysis conducted using a "smart-yoga pillow".
the study studied 630 participants who slept on the pillow and noted a number of factors associated with each participant
these factors are as follows

- Snoring Range
- respiration rate
- Body Temperature
- Limb Movement Rates
- Blood Oxygen Levels
- Eye movement Levels
- Number of Hours Slept
- Heart rate
- stress levels
    - based on a ranking 0-4 the next day

Initial Observations

One initial thing to note about our data is that a minority of participants were ranked as having a hours slept value of 0.
We decided that we would separate these participants into a separate data set because we were unsure how to interpret
this value and we were worried it would influence the rest of the data.

What we want to do with the data

Citations

L. Rachakonda, A. K. Bapatla, S. P. Mohanty, and E. Kougianos, "SaYoPillow: Blockchain-Integrated Privacy-Assured IoMT Framework for Stress Management Considering Sleeping Habits", IEEE Transactions on Consumer Electronics (TCE), Vol. 67, No. 1, Feb 2021, pp. 20-29.

L. Rachakonda, S. P. Mohanty, E. Kougianos, K. Karunakaran, and M. Ganapathiraju, "Smart-Pillow: An IoT based Device for Stress Detection Considering Sleeping Habits", in Proceedings of the 4th IEEE International Symposium on Smart Electronic Systems (iSES), 2018, pp. 161–166.