WristSense

WristSense is a comprehensive framework designed to systematically extract, analyze, and visualize health-related data from wrist-worn devices. This tool is particularly valuable for digital forensic investigations, providing insights into various health metrics such as sleep patterns, heart rate, blood oxygen saturation, activities, and stress levels.

Key Features

- **Health Data Extraction**: WristSense systematically extracts health data from diverse sources of wrist-worn devices, ensuring compatibility with various vendors including Huawei, Amazfit, and Xiaomi
- **Comprehensive Analysis**: The tool analyzes health data to provide insights that can be used to reconstruct detailed timelines of events and individuals involved in a given scenario.
- **Forensic Soundness**: Ensures that the extracted data is forensically sound and suitable for legal proceedings.
- **Reproducibility**: Supports reproducibility for any wrist-devices with any timeframe, allowing users to reproduce the same results consistently.

Usage

1. **Data Extraction**: Use scripts contains “extracting” to extract data from wrist-worn devices connected to a mobile device
2. **Data Analysis**: Run the analysis scripts containing “analyzing” to analyze, visualise data and generate insights.

Considered Vendors

1. Huawei
2. Amazfit
3. Redmi

Contributions

Contributions to WristSense are welcome. Please fork the repository, make your changes, and submit a pull request. Ensure that your code follows the established coding standards and is well-documented.

Contact

For any questions or support, please contact the primary investigator: **Norah Ahmed Almubairik**

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