WELLNESS SCREENING WITH ENDPOINT AI TIME-SERIES SENSOR PROCESSING

SensiML™
AI Sensor Algorithms
for the Extreme Edge

OVERVIEW

SensiML AI sensing algorithms can transform raw signal data from bio, acoustic, and environmental sensors to provide real-time inference and wellness classification using AutoML techniques. SensiML tools automate the search for optimal preprocessing features and classifier algorithms from amongst an extensive library of over 80 feature types and classifiers ranging from distance-based ML to quantized neural networks. Using labeled supervised ML datasets, SensiML Analytics Toolkit can rapidly construct classification models from multiple sensor inputs including:

- Core body temperature trending
- Optical PPG reflection-type pulse / HRM sensors
- VoC gas sensors
- Microphone / acoustic measurement
- Galvanic skin response
- Force / load cell (body weight) trending
- Motion from multi-axis IMU sensors

SensiML SOLUTION

SensiML Analytics Toolkit

- Most comprehensive AI tool available for IoT edge devices
- No AI expertise required to use
- Binary, library, and source code output options
- Data Capture Lab: Powerful, automated data collection & labeling
- Analytics Studio: Auto firmware creation from labeled data
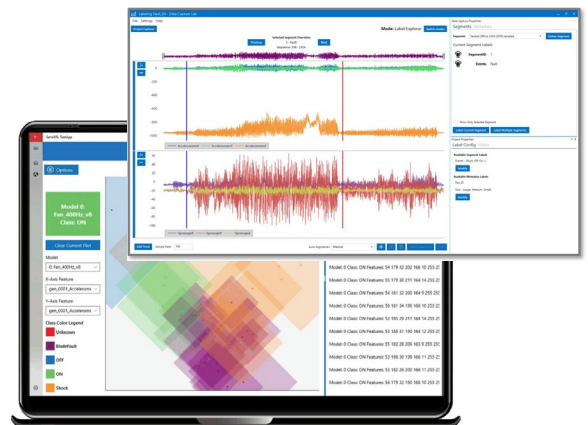- TestApp: AI model validation testing on target hardware

SensiML Knowledge Pack

- Resulting code generated from SensiML Analytics Toolkit
- Extremely compact algorithms: Often less than 64kB
- Data privacy assured through local processing, no raw audio or sensor data to the cloud
- Support for Arm Cortex-M/A, x86, ARC architectures

SensiML Datasets and Custom Engineering Support

- Existing datasets and modeling of health/wellness
- Fast time-to-market from expertise and prior projects
- Knowledgeable embedded IoT data science team

SensiML Analytics Toolkit is a complete AI algorithm creation suite that uniquely includes data collection and labeling and powerful AutoML code generation with full control over model configuration and output.

Proven SensiML Health/Wellness Applications

- Acoustic respiratory cough classification
- NFC temperature patch health classifier
- Wellness / fitness wristband wearables
- First responder status / health wearable
- Gait analysis / fall detection

https://sensiml.com/solutions/healthcare/