Lifestyle analysis based on biophysical signals

SRR Algorithm Research Team Sensor Algorithm Lab

Maxim Titov (m.titov@samsung.com)

Project Summary: Borsonal lifestyle and wellness tracking and guid

- Personal lifestyle and wellness tracking and guiding system based on sensor data analysis
- Expand Samsung Health with automatic and convenient way to monitor eating habits (no user actions required)
- Goals & Deliverables:
 - App design "Meal monitor"
- Differentiation points:
 - Meal detection in quasi real-time or real-time mode
 - Algorithm is based on existing sensors only
 - Easy to integrate into Samsung Health infrastructure







Purpose and functions

- Data collection
- Meal detection(ML algorithms, JAVA implementations)
- .il 67% 🖻 Visualization Raw data visualization Ш 21:02 23:50 **Statistics** 10 0.8 0.8 0.6 0 Meal NO Meal 0.4 0.2 0.5 20190819-12402 19:54 TEST E4 19:47 ۸ (۵ 🗙 📶 99% 🛢 17:17 Main menu Meal NO Meal Sport < Drinking 111 Meal detection Meal Sport 27.08 10:53 27.08 10:53 Drinking 27.08 10:53 27.08 10:53



SAMSUNG

.ıll 73% 🖻

Before n

15:22

16:14

After noc

11:49 🖬 🔍 🏔

Visualization of predicted eating

events at clock type chart

20190819

20190819

Ο

RESEARCH

THANK YOU! 감사합니다! СПАСИБО!

Samsung R&D Institute Russia