Advanced Topics

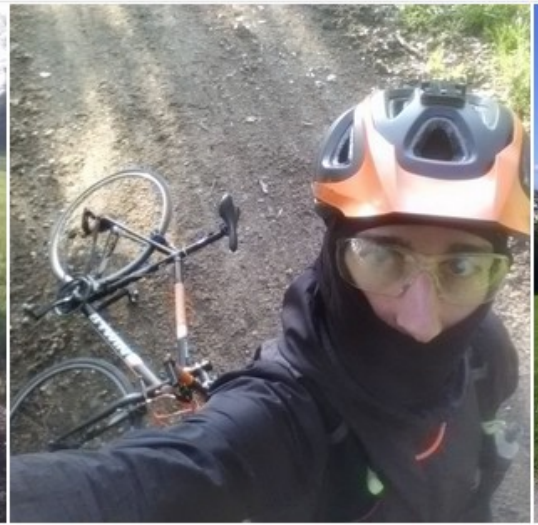
WEB SCIENCES

Etienne Raquin
21.05

STRAVA™

"*If you're crazy about Strava*"
- Dr. Koumpis, 14.05.2019

STRAVA Dashboard Training Explore Challenges Give Summit



Ma Pache

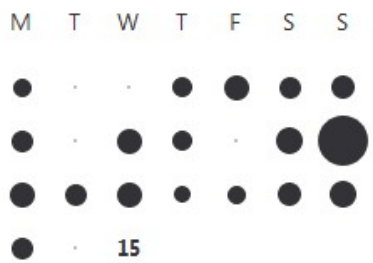
Summit Member

Profile

Last 4 Weeks

23

Total Activities



7h 7m

6h 39m

10h 50m

1h 30m

DashBoard

STRAVA | Dashboard | Training | Explore | Challenges | Give Summit

Following

Ma Pache

Following	Followers	Activities
33	26	352

Latest Activity
Ca baigne - May 13, 2019

Your Training Log

THIS WEEK
0 / 20 km
M T W T F S S
0h0m | 0 m

THIS YEAR
499 km
TODAY

Goal - May 30, 2019
15:00 on IsarTor - MichaelBad

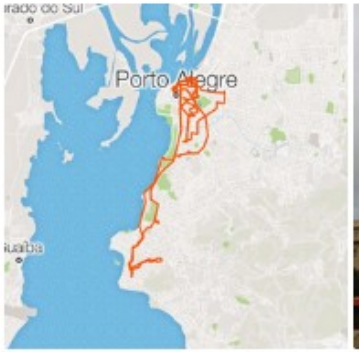
Goal - May 30, 2019
5:00 on Fuchsbauerweg komplett

Wagner Souto
Yesterday at 9:25 AM

Dia 91/2019 - Senta pra valer a pena

Distance	Elev Gain	Time	Achievements
59.62 km	710 m	3h 53m	10

Beira-rio até Farrapos **PR** (12:06)
Descendo a Pinheiro Borda **PR** (33s)



3 kudos

Sérgio P. Oliveira
Yesterday at 9:19 AM

São Lourenço

Distance	Elev Gain	Time	Achievements
40.13 km	409 m	3h 18m	1

Descida Rolima São Lourenço **PR** (4:45)

The Last Mile
Finish your next race with a kick and unlock a donation to the next generation of runners.
Join The Last Mile

Challenges
Join a run or cycling Challenge to stay on top of your game, earn new achievements and see how you stack up.
View All Challenges

Your Clubs
View All Clubs

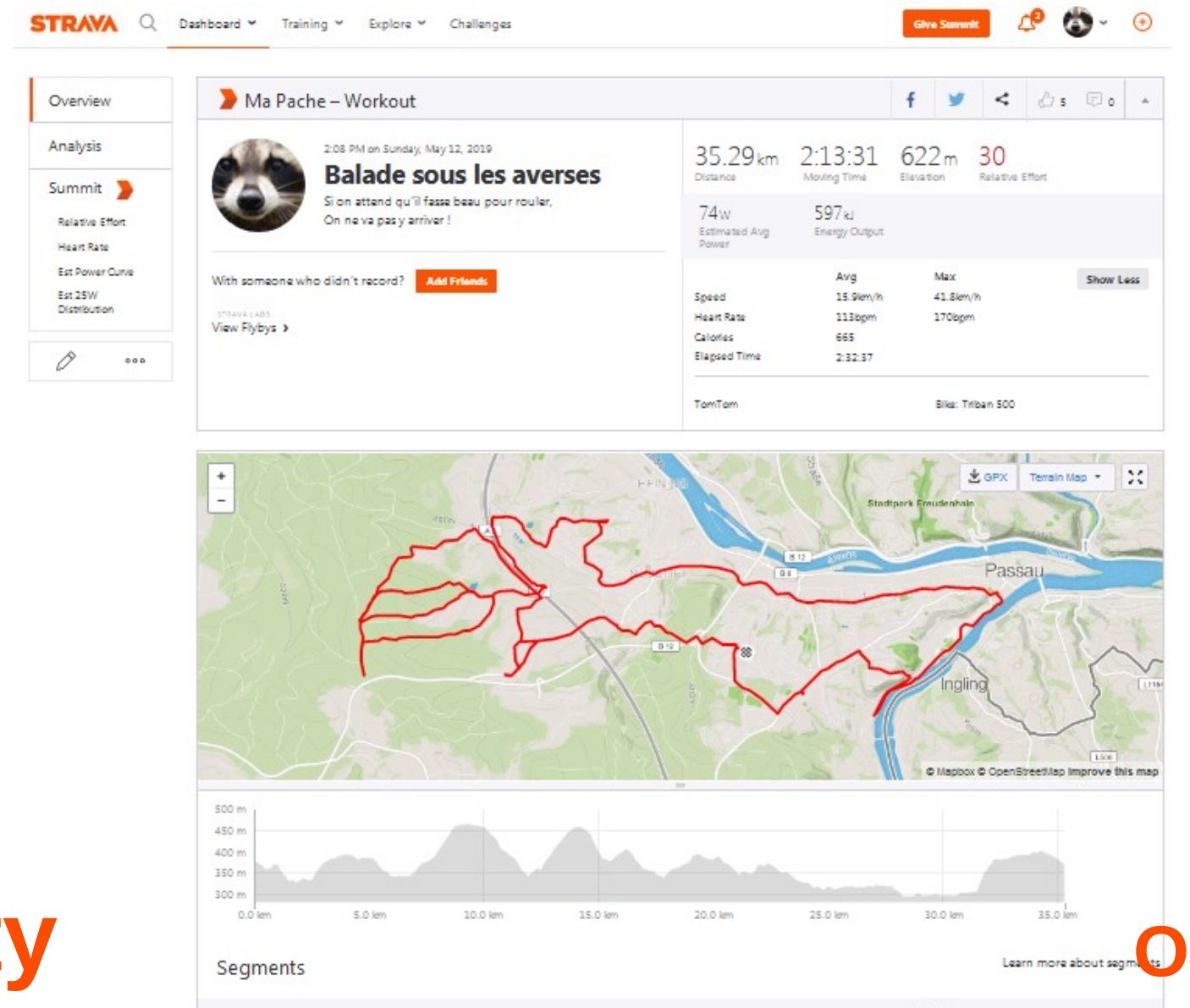
Suggested Friends

Gef SAM (Natur Running)
Mâcon, Bourgogne Franche-Comté, France
Follow

Philippe CLEMENT
Saint-Nizier-sous-Charlieu, Rhône-Alpes, France
Follow

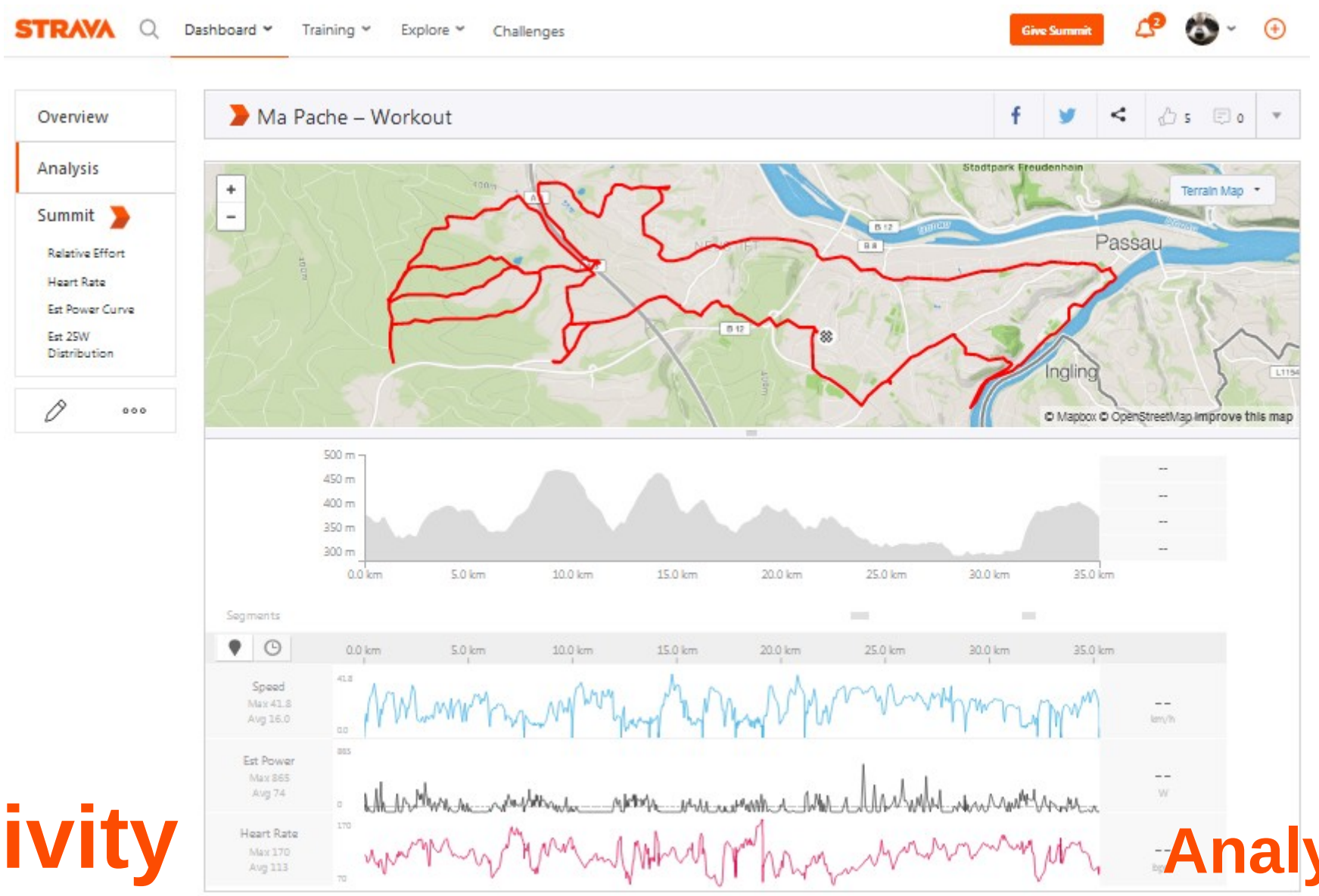
Gérald BERTHIER
Charlieu
Follow

Find and Invite Your Friends



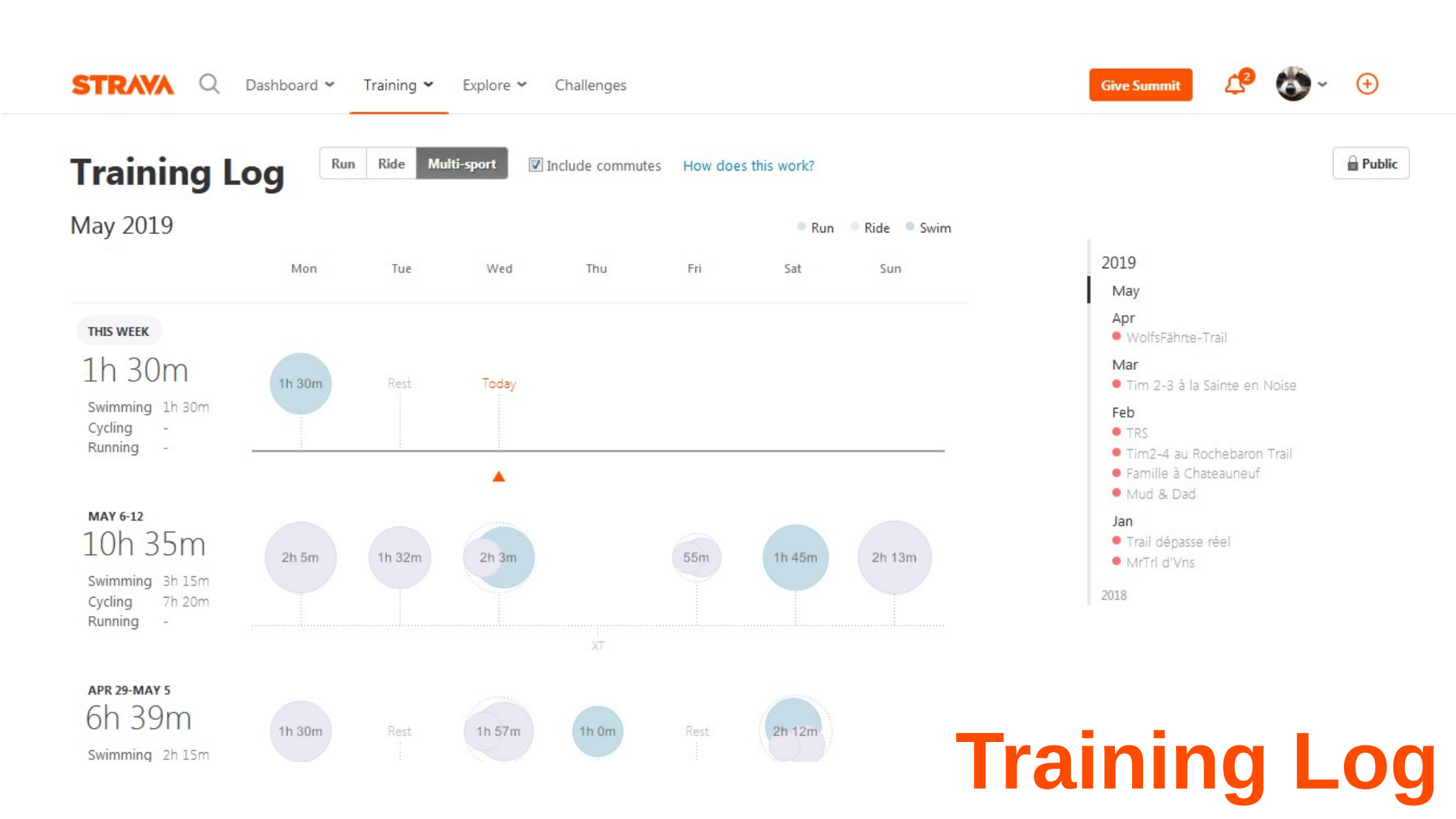
Activity

Overview



Activity

Analysis


STRAVA
Dashboard
Training
Explore
Challenges
Give Summit
Training Log
Run
Ride
Multi-sport
Include commutes
How does this work?
Public
May 2019
Run
Ride
Swim
Mon
Tue
Wed
Thu
Fri
Sat
Sun
THIS WEEK
1h 30m
Swimming 1h 30m
Cycling -
Running -
1h 30m
Rest
Today
MAY 6-12
10h 35m
Swimming 3h 15m
Cycling 7h 20m
Running -
2h 5m
1h 32m
2h 3m
55m
1h 45m
2h 13m
XT
APR 29-MAY 5
6h 39m
Swimming 2h 15m
1h 30m
Rest
1h 57m
1h 0m
Rest
2h 12m
2019
May
Apr
WolfsFährte-Trail
Mar
Tim 2-3 à la Sainte en Noise
Feb
TRS
Tim2-4 au Rochebaron Trail
Famille à Chateauneuf
Mud & Dad
Jan
Trail dépasse réel
MrTrl d'Vns
2018
Training Log

STRAVA Dashboard Training Explore Challenges Give Summit

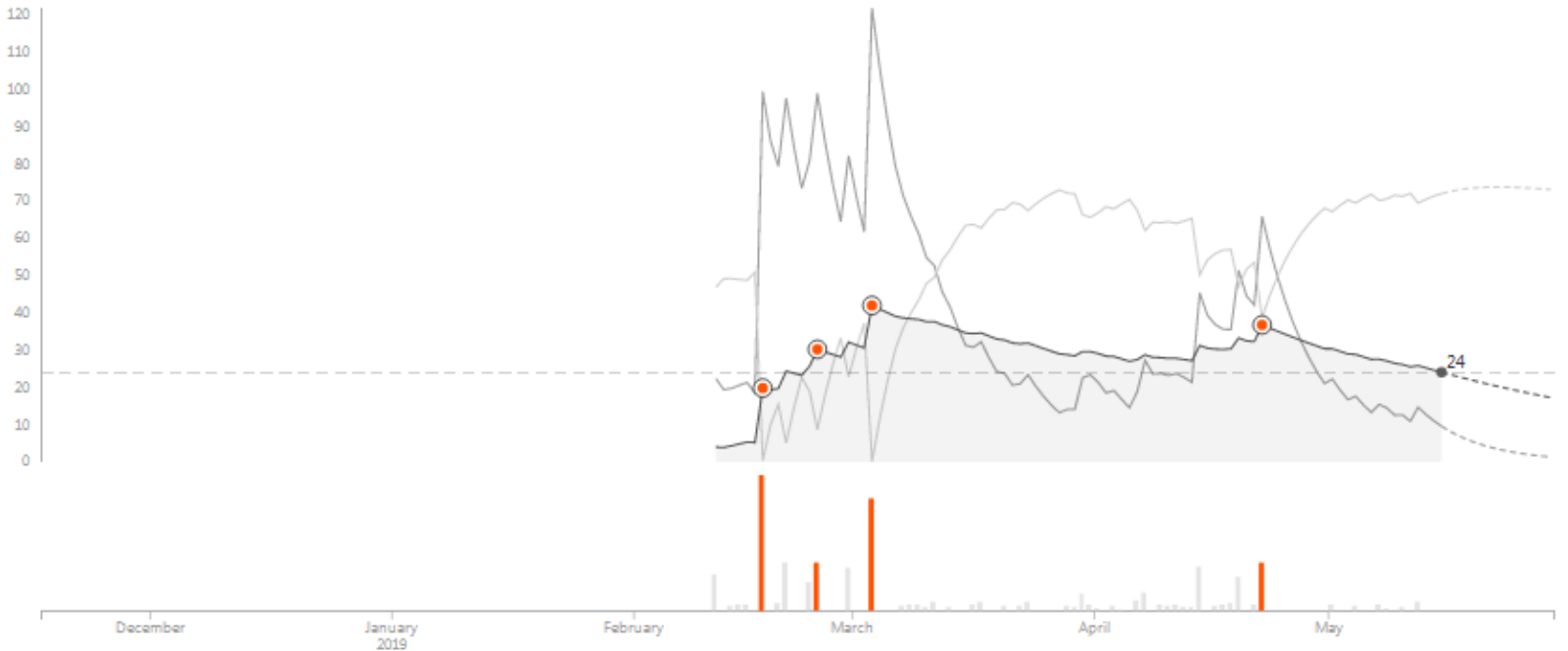
Fitness & Freshness

Fitness and Freshness considers your heart rate based Relative Effort and power based Training Load to track your levels of fitness, fatigue and form over time. Learn More

We've improved our heart rate calculations, so you might notice some changes to your Fitness & Freshness values. Learn more.

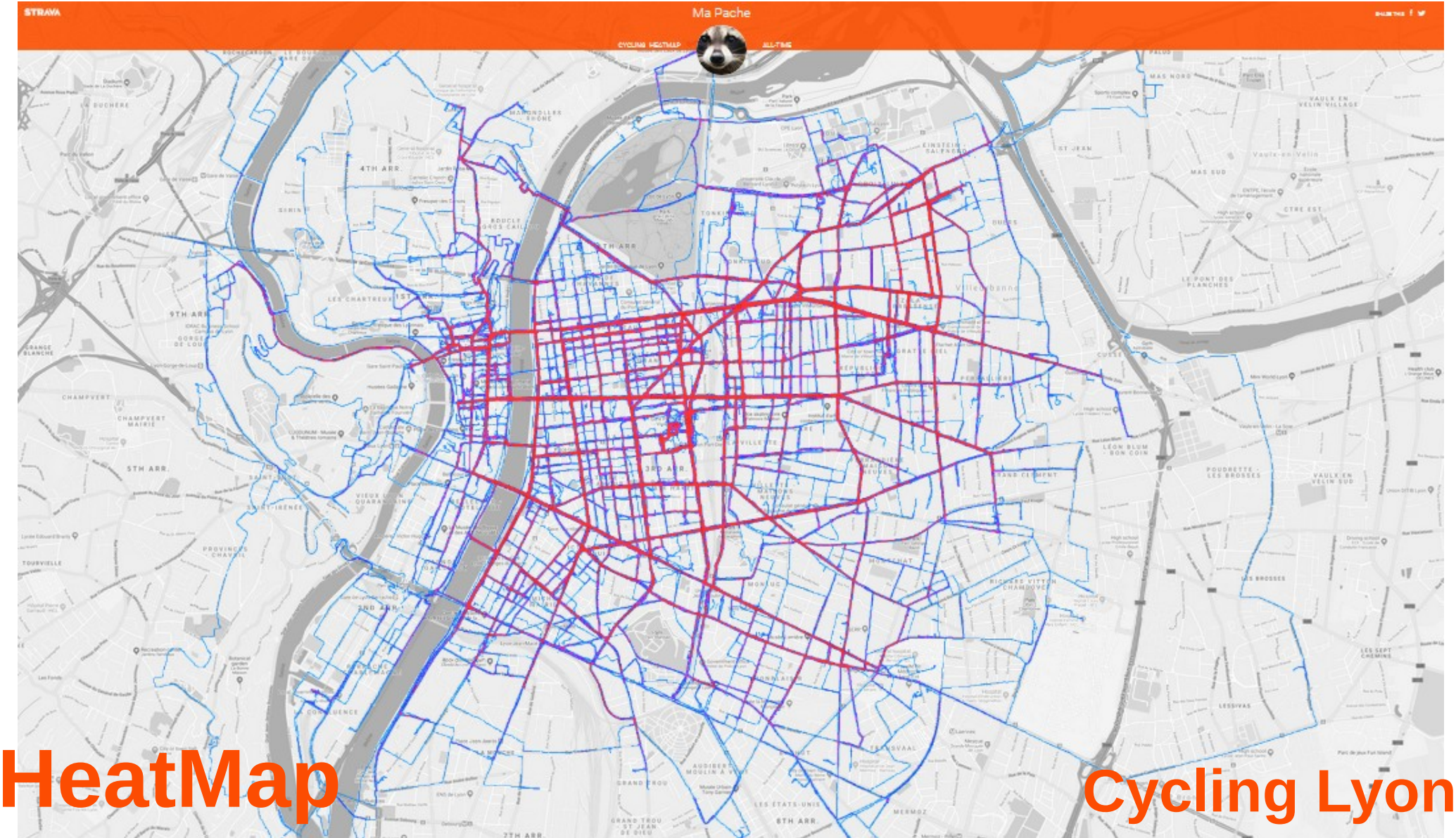
Current

24 FITNESS -2 10 FATIGUE ON 15 FORM ON All Activities Power & Heart Rate Last 6 Months



Fitness

Freshness


STRAVA
Ma Pache
CYCLING HEATMAP
ALL-TIME
HeatMap
Cycling Lyon

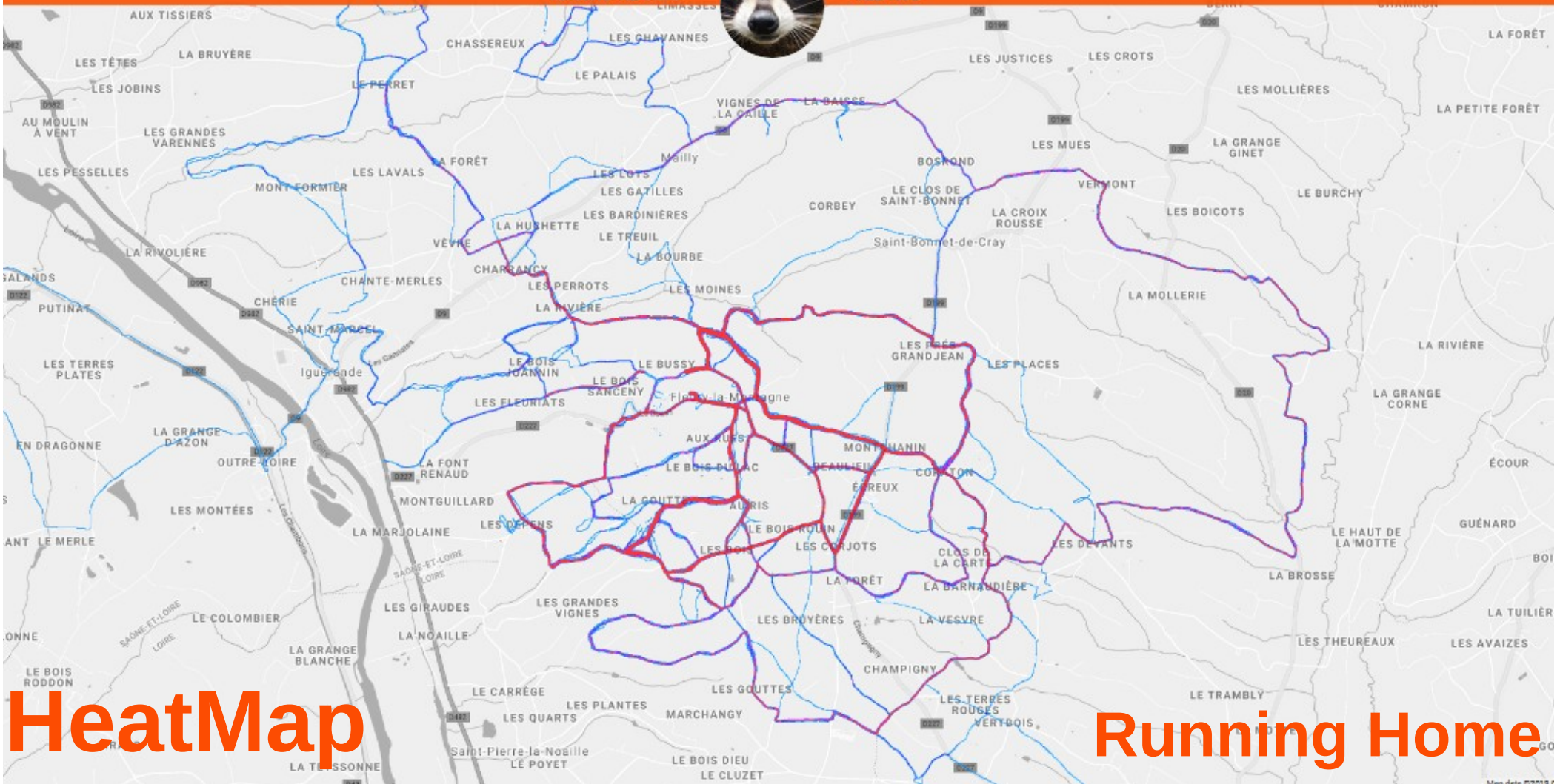
STRAVA

Ma Pache

SHARE THIS

RUNNING HEATMAP

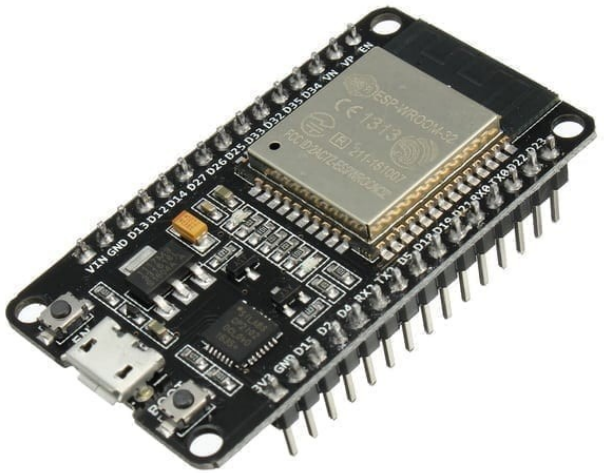
ALL-TIME



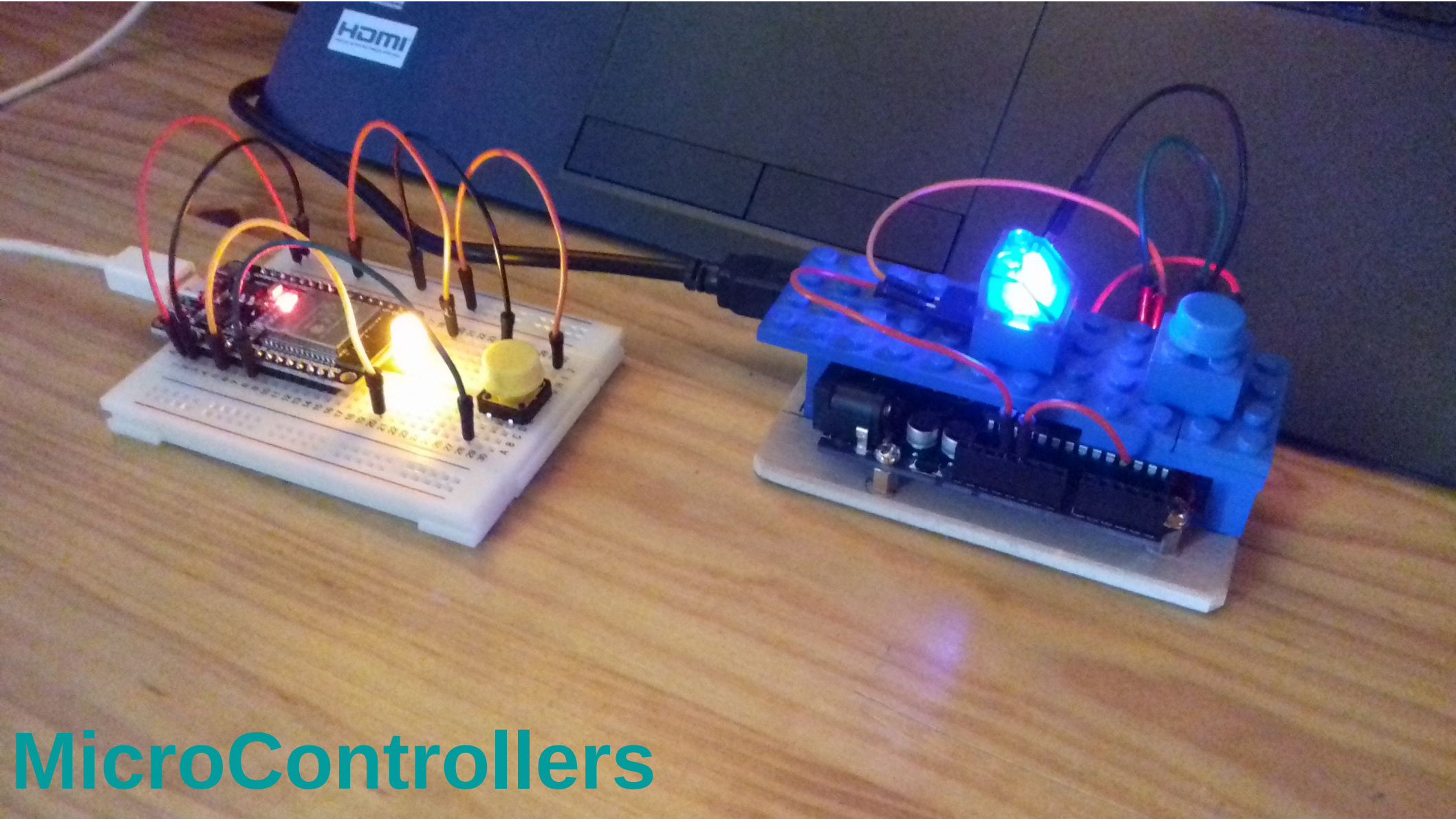
HeatMap

Running Home

SIEMENS



“Interoperability with Scripting
on MicroControllers”



MicroControllers

```
127
128     INFO_PRINT(START, ("Script from Serial"));
129     int maxScriptLength = 200;
130     int scriptLength = maxScriptLength;                    (unsigned long)1UL
131     char * maxScript = (char *)(malloc (maxScriptLength * sizeof(char)));
132     //* Waiting for Script from Serial : LED On
133     gpio_write(ledGpio, 0);
134     // Waiting for Script from Serial : LED On */
135     scriptLength = getSerialScript(maxScript, maxScriptLength);
136     //* Waiting for Screen : LED Off
137     gpio_write(ledGpio, 1);
138     vTaskDelay(50);
139     //* Waiting for Screen : LED Off */
140     char * script = (char *)(malloc (scriptLength * sizeof(char)));
141     INFO_PRINT(END, ("Script from Serial"));
142
143     HEAP_PRINT(("Free Heap : %d", xPortGetFreeHeapSize()));
144     STACK_PRINT(("Min Free Stack : %d", (int)uxTaskGetStackHighWaterMark(NULL)));
145
```

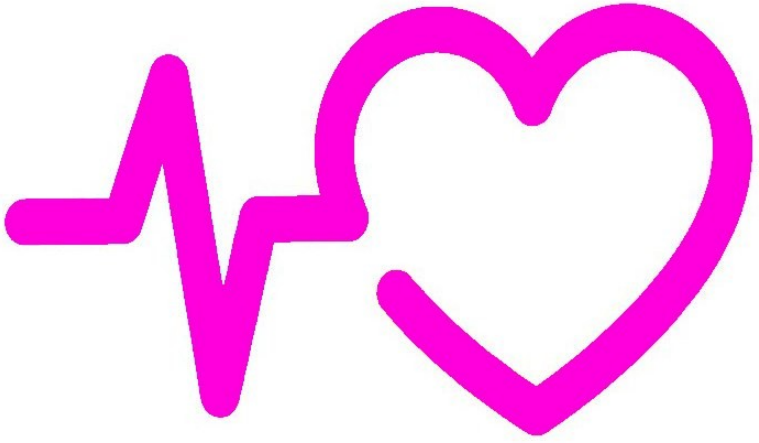
```
47      argsNb = duk_get_top(ctx);
48      INFO_PRINT(LINE, ("Arguments Number : %d", argsNb));
49
50      HEAP_PRINT(("Free Heap : %d", xPortGetFreeHeapSize()));
51      STACK_PRINT(("Min Free Stack : %d", (int)uxTaskGetStackHighWaterMark(NULL)));
52
53      if (xPortGetFreeHeapSize() < minFreeHeap)
54      {
55          minFreeHeap = xPortGetFreeHeapSize();
56      }
57
58      int iArg = 0;
59      for (iArg = 0; iArg < argsNb; iArg = iArg + 1)
60      {
61          INFO_PRINT(LINE, ("Getting Number Argument %d/%d", iArg, argsNb));
62          arg = duk_to_number(ctx, iArg);
```

```
5546
5547  Memory Configuration
5548
5549  Name             Origin             Length             Attributes
5550  dport0_0_seg     0x000000003ff00000 0x0000000000000010
5551  dram0_0_seg      0x000000003ffe8000 0x0000000000014000
5552  iram1_0_seg      0x0000000040100000 0x0000000000008000
5553  irom0_0_seg      0x0000000040202010 0x000000000000fdff0
5554  *default*        0x0000000000000000 0xffffffffffffffff
5555
5556  Linker script and memory map
5557
```

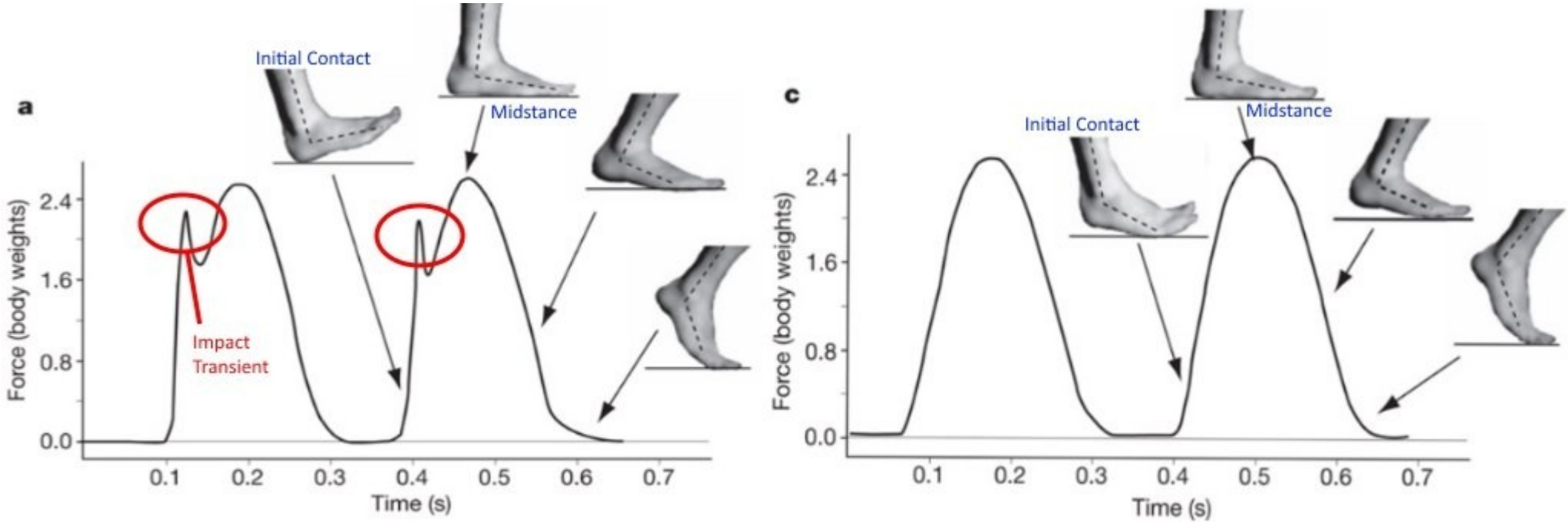
```
5620
5621  .text           0x0000000040100000     0x6eca
5622                  0x0000000040100000                _stext = .
5623                  0x0000000040100000                _text_start = ABSOLUTE (.)
5624                  0x0000000040100000                . = ALIGN (0x10)
5625  *(.vecbase.text)
```

Low Level

HEALTH



"*It would be great*
if you could do something
related to health"
- Dr. Koumpis, 14.05.2019



REARFOOT STRIKE

[adapted from Lieberman et al. (2010)]

MIDFOOT / FOREFOOT STRIKE

ForeFoot Strike

Improving Health
By enriching Strava Activities
With MicroControllers Data

Improving Health
By enriching Strava Activities
With MicroControllers Data

AcceleroMeter

Force Pressure Sensor

Improving Health
By enriching Strava Activities
With MicroControllers Data

Your Opinion ?