

# Interview

## Part 1: Proposal for data analysis/or preliminary analysis. Due 8/11.

### Instruction:

The folder **zipped\_csv.zip** contains dataset from a cycling time trial race by an elite rider. 3 csv files represent 3 laps of the circuit course completed by this rider.

Please propose a method or sample of analyzing this dataset to extract relationships among variables. I'm looking for something additional to metrics vs. time, that give one the insights into motion metrics variation of rider during this event. **The short answer could be in the form of sentences, a simple list with bullet points, and/or a sample plot(s). I'm simply curious to know your thought process.**

The header of the dataframe are as follows. Some of them are common names while others are not immediately recognizable. It is not crucial that you have a complete understanding of the metrics. The ones in blue fonts are the Motion Performance Indicators developed by LEOMO. If you're interested, the list and explanation can be found at:

<https://leomo.zendesk.com/hc/en-us/sections/115001055447-Motion-Performance-Indicators-MPIs->

```
'Elapsed_time' = Elapsed time
'Distance' = Distance
'Latitude' = Latitude
'Longitude' = Longitude
'Altitude' = Altitude
'L_r_balance' = L/R pedaling power balance
'Power' = Power (ANT+)
'Cadence' = Cadence (ANT+)
'Speed' = Speed (ANT+)
'Heartrate' = Heart Rate (ANT+)
'Ankling_log_left' = Dead Spot Score (DSS) Left
'Ankling_log_right' = DSS Right
'Foot_range_log_left' = Foot Angular Range (FAR) Left
'foot_range_log_right' = FAR Right
'Leg_range_log_left' = Leg Angular Range (LAR) Left
'Leg_range_log_right' = LAR Right
'Pedaling_delay_log_left' = Foot Angular Range (FAR) Left for Q1
'Pedaling_delay_log_right' = Foot Angular Range (FAR) Right for Q1
'Waist_angle_log_center' = Pelvic Angle
'Waist_d_rot_y_center' = Pelvic Rotation
'Waist_d_rot_z_center' = Pelvic Rock
'Torso_angle_log_center' = Torso Angle
'Torso_d_rot_y_center' = Torso Rotation
'Torso_d_rot_z_center' = Torso Rock
```

**Part 2: (Zoom interview):** Based on the feedback on part 1, I will arrange the second Zoom interview in which you'll be (virtually) meeting with senior members of the company.