[FUN]ctionality of Studying Temperature and Altitude in Assessing Athlete Fatigue and Performance

Team [FUN]ction
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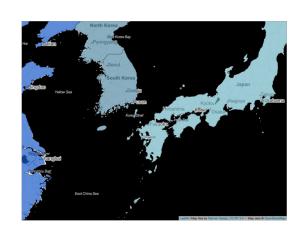
Our approach

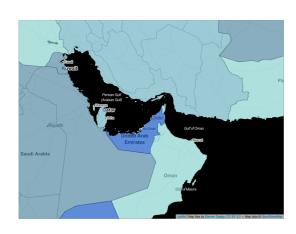
- Datafest Sources uses: Wellness, GPS, and Games Date datasets
- Research question: Rugby7S travels very frequently games How does it affect their acclimatization to the competition venue?
- External data:
 - https://www.wunderground.com/ Weather archive and source of temperature information
 - https://rugby.ca/en/events/international Rugby Canada official schedule and source of game times
 - https://www.latlong.net/ geographic info website for different cities and source of elevation information

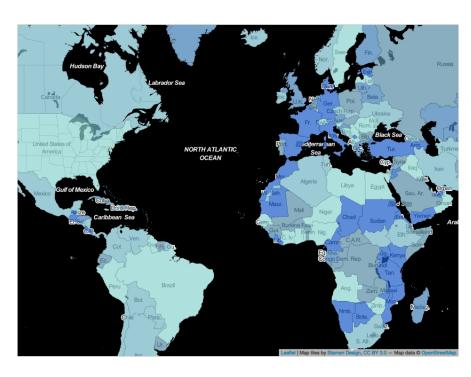
Exploratory Data Analysis

SD_AccelLoad -	0.02	-0.12	-0.11	-0.03	-0.03	-0.07	-0.02	0.09	-0.11	-0.14	-0.08	0.86	0.8	0.92	0.69	-0.05	0.67	0.88	0.7	1
SD_Accellmpulse -	0.07	-0.23	-0.06	0.02	0.1	-0.03	-0.06	0.1	-0.16	-0.02	-0.03	0.66	0.82	0.67	0.58	0.49	0.36	0.77	1	0.7
SD_Speed -	0.06	-0.09	-0.03	0	0.02	-0.04	-0.08	0.12	-0.12	-0.08	-0.06	0.79	0.74	0.8	0.75	0.03	0.49	1	0.77	0.88
Max_AccelLoad -	0.11	-0.04	0	0.08	0.1	-0.02	0.07	0.11	0	0	0.06	0.5	0.45	0.5	0.51	-0.11	1	0.49	0.36	0.67
Max_Accellmpulse -	0.09	-0.02	0.05	0.12	0.1	0.04	0	0.06	0.07	0.03	0.1	-0.03	0.22	-0.06	0.03	1	-0.11	0.03	0.49	-0.05
Max_Speed -	0.17	-0.01	0.08	0.04	0.13	-0.07	-0.06	0.12	-0.09	-0.14	0	0.6	0.58	0.55	1	0.03	0.51	0.75	0.58	0.69
Mean_AccelLoad -	-0.02	-0.12	-0.13	-0.12	-0.11	-0.1	-0.05	0.03	-0.2	-0.11	-0.17	0.95	0.9	1	0.55	-0.06	0.5	0.8	0.67	0.92
Mean_Accellmpulse -	0.03	-0.13	-0.08	-0.08	-0.03	-0.11	-0.07	0	-0.24	-0.09	-0.16	0.94	1	0.9	0.58	0.22	0.45	0.74	0.82	0.8
Mean_Speed -	0.01	-0.08	-0.09	-0.1	-0.08	-0.11	-0.07	0	-0.22	-0.1	-0.17	1	0.94	0.95	0.6	-0.03	0.5	0.79	0.66	0.86
MonitoringScore -	0.1	0.04	0.06	0.83	0.78	0.6	0.66	0.19	0.7	-0.04	1	-0.17	-0.16	-0.17	0	0.1	0.06	-0.06	-0.03	-0.08
BSG -	0.01	-0.16	-0.01	-0.03	-0.08	0.03	-0.06	0.08	0	1	-0.04	-0.1	-0.09	-0.11	-0.14	0.03	0	-0.08	-0.02	-0.14
SleepQuality -	0.03	0.05	0.11	0.56	0.32	0.13	0.4	0.3	1	0	0.7	-0.22	-0.24	-0.2	-0.09	0.07	0	-0.12	-0.16	-0.11
SleepHours -	0.12	-0.11	0.06	0.25	0.17	-0.14	0.03	1	0.3	0.08	0.19	0	0	0.03	0.12	0.06	0.11	0.12	0.1	0.09
Irritability -	-0.01	0.08	0.03	0.42	0.39	0.4	1	0.03	0.4	-0.06	0.66	-0.07	-0.07	-0.05	-0.06	0	0.07	-0.08	-0.06	-0.02
Desire -	0.07	-0.01	-0.1	0.29	0.35	1	0.4	-0.14	0.13	0.03	0.6	-0.11	-0.11	-0.1	-0.07	0.04	-0.02	-0.04	-0.03	-0.07
Soreness -	0.13	0.02	0.09	0.66	1	0.35	0.39	0.17	0.32	-0.08	0.78	-0.08	-0.03	-0.11	0.13	0.1	0.1	0.02	0.1	-0.03
Fatigue -	0.09	0.04	0.07	1	0.66	0.29	0.42	0.25	0.56	-0.03	0.83	-0.1	-0.08	-0.12	0.04	0.12	0.08	0	0.02	-0.03
Altitude -	0.08	0.47	1	0.07	0.09	-0.1	0.03	0.06	0.11	-0.01	0.06	-0.09	-0.08	-0.13	0.08	0.05	0	-0.03	-0.06	-0.11
Temp -	-0.04	1	0.47	0.04	0.02	-0.01	0.08	-0.11	0.05	-0.16	0.04	-0.08	-0.13	-0.12	-0.01	-0.02	-0.04	-0.09	-0.23	-0.12
TeamPoints -	1	-0.04	0.08	0.09	0.13	0.07	-0.01	0.12	0.03	0.01	0.1	0.01	0.03	-0.02	0.17	0.09	0.11	0.06	0.07	0.02
	TeamPoints	Temp	Altitude	Fattgue	Soreness	Desire	rritability	SleepHours	SleepQuality	• 9Sn	MonitoringScore	Mean_Speed	/lean_Accellmpulse	Mean_AccelLoad '	Max_Speed	Max_Accellmpulse •	Max_AccelLoad `	SD_Speed	SD_Accellmpulse	SD_AccelLoad
										Feat	tures		2			-				
									C	orrelation Meter	1.0 -0.5 0.0 0.5	1.0								

Locations where Rugby7S travelled for tournaments















Our findings

