Preproceso de los Datos

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Seleccionando el sensor de cabeza del paciente 101 con actividad 801.

Reporte de calidad de los datos.

El siguiente reporte de calidad de los datos se ha realizado de a cuerdo a lo propuesto por [1, pp. 102-104].

	Count	Miss	Card	Min	Qrt1	Median	Qrt3	Max	Mean	Sdev
Temperature	616	0	1	0.0000000	0.00	0.00	0.00	0.0000000	0.00	0.00
VelInc_X	616	0	482	0.0228987	0.38	0.38	0.39	0.7464828	0.40	0.10
VelInc_Y	616	0	557	-0.3015785	0.00	0.02	0.04	0.5197754	0.03	0.10
VelInc_Z	616	0	551	-0.2578735	-0.09	-0.08	-0.07	0.2125854	-0.09	0.05
Acc_X	616	0	482	0.5724669	9.57	9.60	9.76	18.6620712	9.94	2.41
Acc_Y	616	0	557	-7.5394630	0.08	0.55	0.88	12.9943848	0.83	2.38
Acc_Z	616	0	551	-6.4468384	-2.32	-2.12	-1.78	5.3146362	-2.15	1.13
Gyr_X	616	0	616	-1.5889960	-0.06	0.00	0.01	1.5482344	-0.04	0.43
Gyr_Y	616	0	616	-1.2389934	-0.03	-0.01	0.00	1.2744452	0.01	0.28
Gyr_Z	616	0	616	-3.9946031	-0.66	0.00	0.02	6.2072399	0.02	1.72
Mag_X	616	0	306	-1.0222168	-0.67	-0.60	-0.59	-0.0085449	-0.60	0.13
Mag_Y	616	0	292	-0.9470215	-0.76	-0.51	-0.48	0.0695801	-0.57	0.22
Mag_Z	616	0	310	0.6274414	0.69	0.93	0.96	1.1000977	0.85	0.13
Pressure	616	0	16	892.2000000	892.34	892.38	892.42	892.5200000	892.37	0.06
Roll	616	0	616	-179.4780225	110.42	152.28	155.80	179.3543963	102.80	104.08
Pitch	616	1	615	-83.4990731	-78.61	-75.80	-72.16	-34.2632921	-72.04	10.44
Yaw	616	1	615	-95.7484277	-8.44	-0.15	3.48	52.9910235	-3.70	31.82
RSSI	616	1	34	-92.0000000	-75.00	-70.00	-68.00	-56.0000000	-71.11	5.77

Visualizaciones iniciales

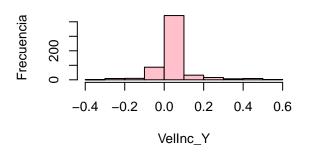
Incremento en Velocidad

Incremento en Velocidad en X

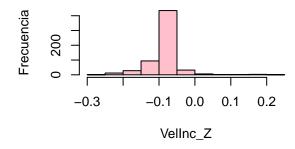
incremento en velocidad en A

0.0 0.2 0.4 0.6 Vellnc_X

Incremento en Velocidad en Y



Incremento en Velocidad en Z

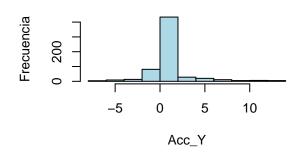


Aceleración

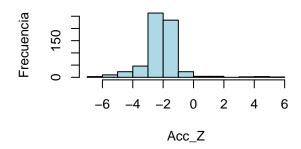
Aceleración en X

Lecnencia 0 5 10 15 20 Acc_X

Aceleración en Y



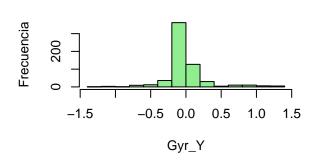
Aceleración en Z



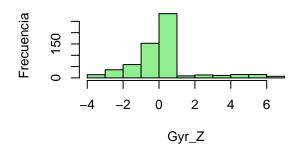
Giroscopio

Giroscopio en X

Giroscopio en Y

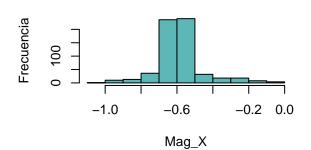


Giroscopio en Z

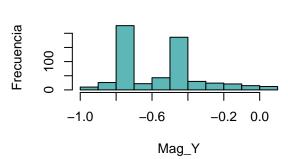


Magnitud

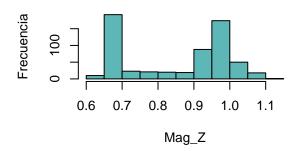
Magnitud en X



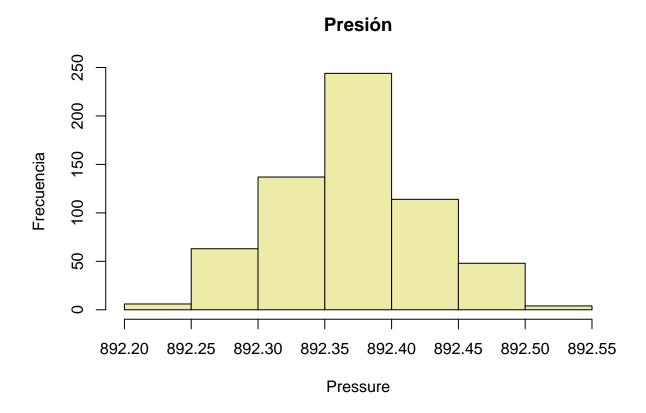
Magnitud en Y

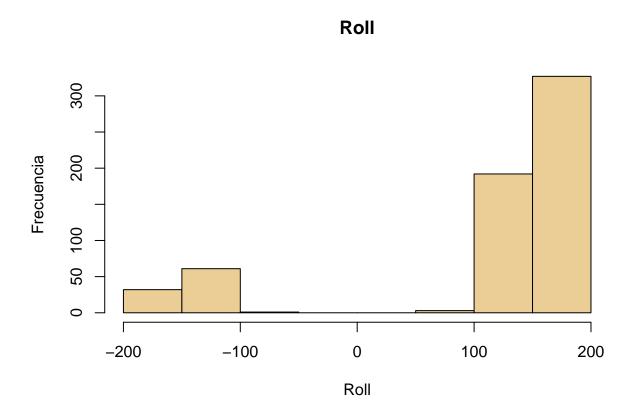


Magnitud en Z

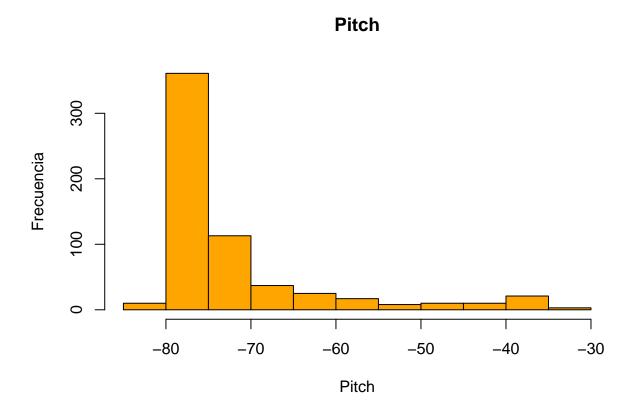


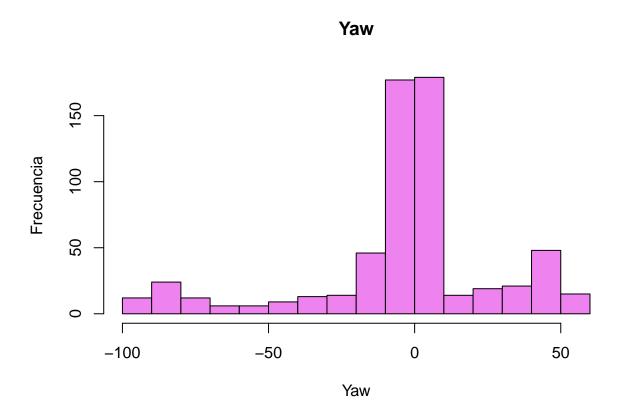
Pressure



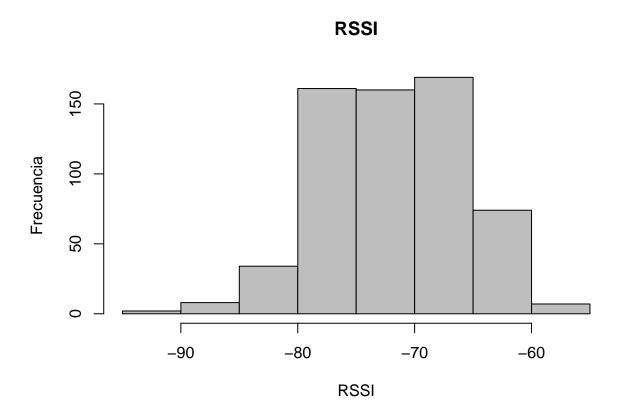


Pitch





RSSI



Observaciones Iniciales

• La variable Temperatura no cuenta con datos relevantes para nuestro análisis.

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Referencias

[1] J. D. Kelleher, B. Mac Namee, and A. D'arcy, Fundamentals of machine learning for predictive data analytics: Algorithms, worked examples, and case studies. MIT Press, 2015.