Report

Contents

Original Data

Fecha	cod_ine	provincia	Casos	Fallecidos	Hospitalizados	UCI
2020-01-01	0	No consta	0	0	0	0
2020-01-01	1	Araba/Álava	0	0	0	0
2020-01-01	2	Albacete	0	0	0	0
2020-01-01	3	Alicante/Alacant	0	0	0	0
2020-01-01	4	Almería	0	0	0	0

Best hyperparameters *(windowsize_1, Casos_t+1)*

Model	normalize	fit_intercept	C	kernel	layers	neurons
Linear Regression	True	False	-	-	-	-
SVR	-	-	0.0001	sigmoid	-	-
DNN	-	-	-	-	7.0	[16, 11, 13, 16, 10, 18, 1]

activation	optimizer	lr
-	-	-
-	-	-
['relu', 'relu', 'relu', 'relu', 'relu', 'relu', 'linear']	Adam	0.001

Metrics evaluation *(windowsize_1, Casos_t+1)*

Model	MAE	MSE
Linear Regression	30.9221	1522.1434
SVR	41.3421	2741.6554
DNN	30.7089	1499.0334

Best hyperparameters *(windowsize_1, Casos_t+7)*

Model	normalize	fit_intercept	C	kernel	layers	neurons
Linear Regression	True	False	-	-	-	-
SVR	-	-	0.0008	poly	-	-
DNN	-	-	-	-	6.0	[10, 14, 12, 14, 14, 1]

activation	optimizer	lr
-	-	-
-	-	-
['relu', 'relu', 'relu', 'relu', 'relu', 'linear']	Adam	0.001

Metrics evaluation *(windowsize_1, Casos_t+7)*

Model	MAE	MSE
Linear Regression	44.3529	2982.0234
SVR	41.5371	2809.3107
DNN	37.795	2076.9354

Best hyperparameters *(windowsize_1, Casos_t+14)*

Model	normalize	fit_intercept	C	kernel	layers	neurons
Linear Regression	True	True	-	-	-	-
SVR	-	-	0.0339	poly	-	-
DNN	-	-	-	-	3.0	[10, 12, 1]

activation	optimizer	lr
-	-	-
-	-	-
['relu', 'relu', 'linear']	Adam	0.001

Metrics evaluation *(windowsize_1, Casos_t+14)*

Model	MAE	MSE
Linear Regression	72.0406	7859.3332
SVR	38.695	2375.9279
DNN	76.8269	7701.0046

Best hyperparameters *(windowsize_7, Casos_t+1)*

Model	normalize	fit_intercept	C	kernel	layers	neurons
Linear Regression	True	False	-	-	-	-
SVR	-	-	0.0002	sigmoid	-	-
DNN	-	-	-	-	5.0	[18, 18, 15, 19, 1]

activation	optimizer	lr
-	-	-
-	-	-
['relu', 'relu', 'relu', 'relu', 'linear']	Adam	0.001

Metrics evaluation *(windowsize_7, Casos_t+1)*

Model	MAE	MSE
Linear Regression	28.1061	1218.2048
SVR	41.5867	2815.6744
DNN	36.1511	2176.217

Best hyperparameters *(windowsize_7, Casos_t+7)*

Model	normalize	fit_intercept	C	kernel	layers	neurons
Linear Regression	False	True	-	-	-	-
SVR	-	-	0.1598	rbf	-	-
DNN	-	-	-	-	6.0	[16, 19, 15, 11, 10, 1]

activation	optimizer	lr
-	-	-
-	-	-
['relu', 'relu', 'relu', 'relu', 'relu', 'linear']	Adam	0.001

Metrics evaluation *(windowsize_7, Casos_t+7)*

Model	MAE	MSE
Linear Regression	42.0842	2746.1027
SVR	43.0746	3057.1872
DNN	41.5956	3154.5466

Best hyperparameters *(windowsize_7, Casos_t+14)*

Model	normalize	fit_intercept	C	kernel	layers	neurons
Linear Regression	True	True	-	-	-	-
SVR	-	-	0.2126	sigmoid	-	-
DNN	-	-	-	-	7.0	[18, 16, 20, 12, 13, 20, 1]

activation	optimizer	lr
-	-	-
-	-	-
['relu', 'relu', 'relu', 'relu', 'relu', 'relu', 'linear']	Adam	0.001

Metrics evaluation *(windowsize_7, Casos_t+14)*

Model	MAE	MSE
Linear Regression	58.487	5226.9936
SVR	52.1441	4292.549
DNN	49.2168	4364.1806

Best hyperparameters *(windowsize_14, Casos_t+1)*

Model	normalize	fit_intercept	C	kernel	layers	neurons
Linear Regression	False	True	-	-	-	-
SVR	-	-	0.021	sigmoid	-	-
DNN	-	-	-	-	7.0	[12, 16, 16, 10, 12, 20, 1]

activation	optimizer	lr
-	-	-
-	-	-
['relu', 'relu', 'relu', 'relu', 'relu', 'relu', 'linear']	Adam	0.001

Metrics evaluation *(windowsize_14, Casos_t+1)*

Model	MAE	MSE
Linear Regression	27.2153	1142.8419
SVR	44.3037	3196.3455
DNN	44.1906	2742.4465

Best hyperparameters *(windowsize_14, Casos_t+7)*

Model	normalize	fit_intercept	C	kernel	layers	neurons
Linear Regression	False	False	-	-	-	-
SVR	-	-	0.0004	sigmoid	-	-
DNN	-	-	-	-	3.0	[18, 18, 1]

activation	optimizer	lr
-	-	-
-	-	-
['relu', 'relu', 'linear']	Adam	0.001

Metrics evaluation *(windowsize_14, Casos_t+7)*

Model	MAE	MSE
Linear Regression	50.3871	3721.3793
SVR	51.7307	4270.215
DNN	46.921	3897.4505

Best hyperparameters *(windowsize_14, Casos_t+14)*

Model	normalize	fit_intercept	C	kernel	layers	neurons
Linear Regression	False	False	-	-	-	-
SVR	-	-	1.268	poly	-	-
DNN	-	-	-	-	4.0	[19, 14, 13, 1]

activation	optimizer	lr
-	-	-
-	-	-
['relu', 'relu', 'relu', 'linear']	Adam	0.001

Metrics evaluation *(windowsize_14, Casos_t+14)*

Model	MAE	MSE
Linear Regression	78.4029	10082.8063
SVR	39.5656	2533.599
DNN	46.5453	4057.9108

Distribution Data

Hospitalizados

UCI
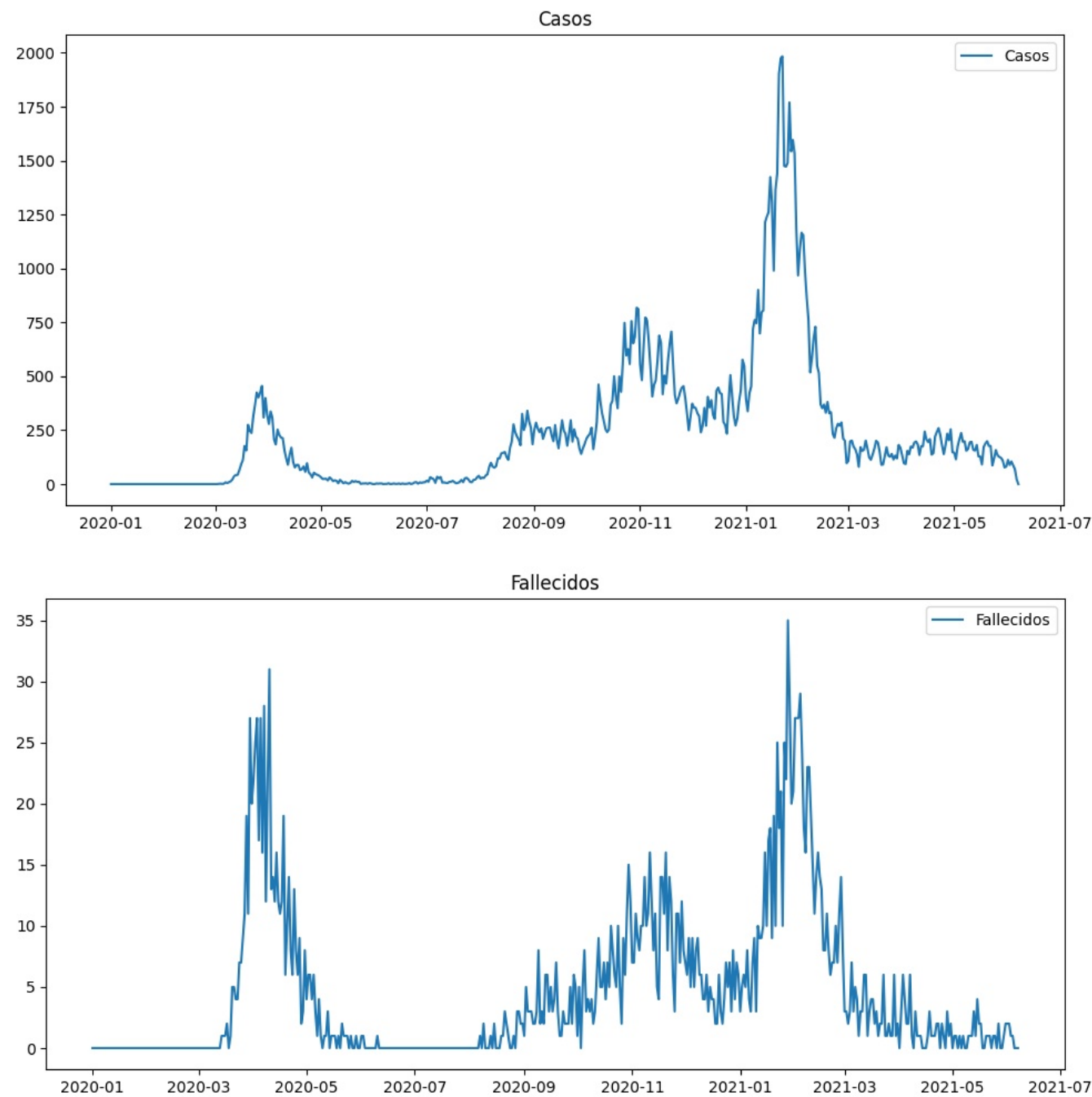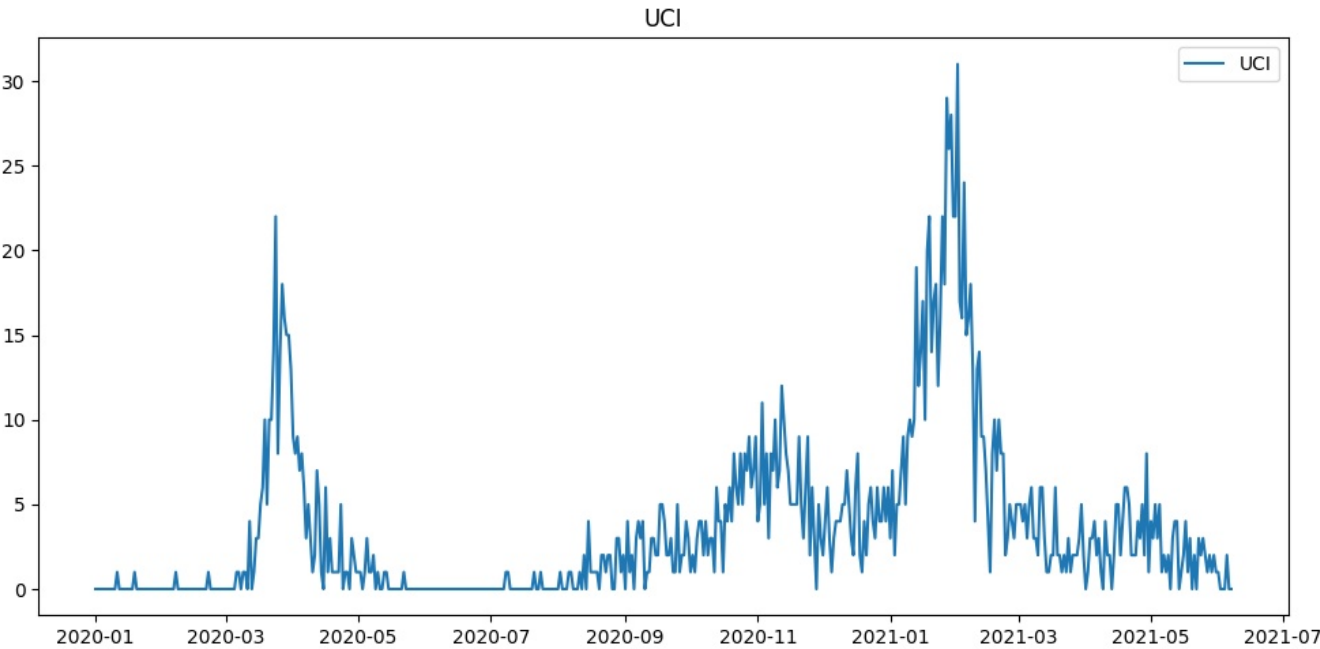
PCA analisys
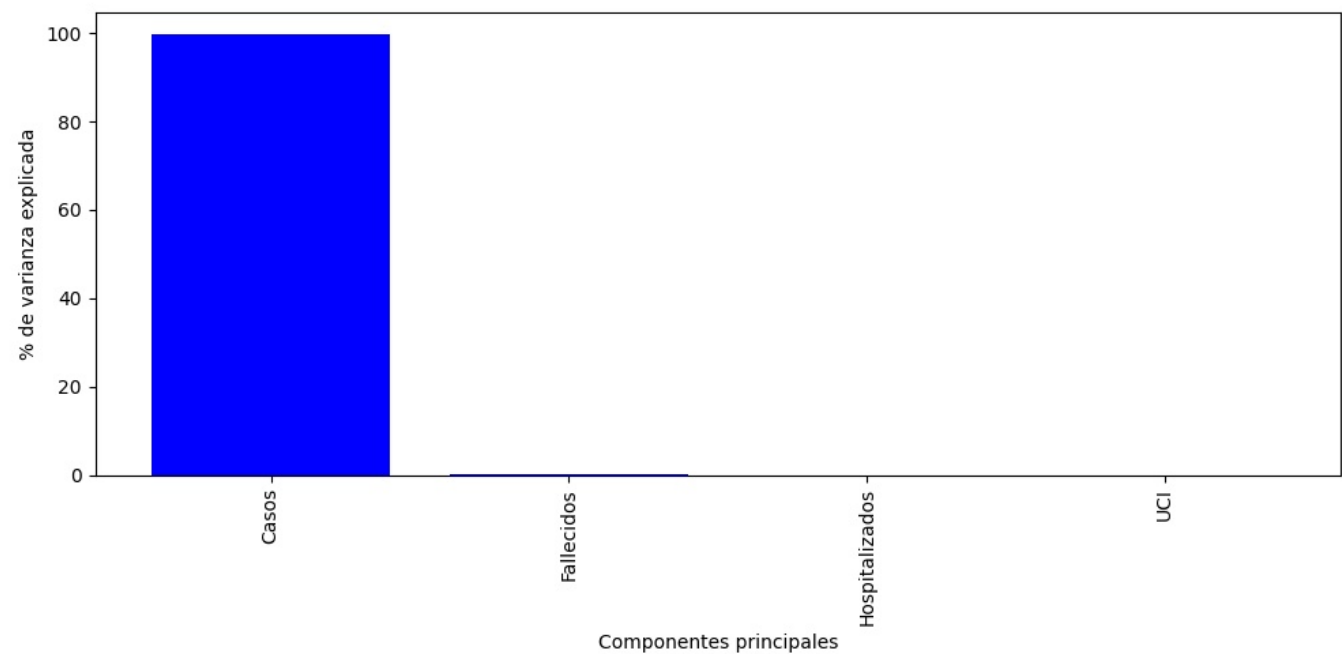
Validation curve, windowsize_1, Casos_t+1

Windowsize_1, Casos_t+1