

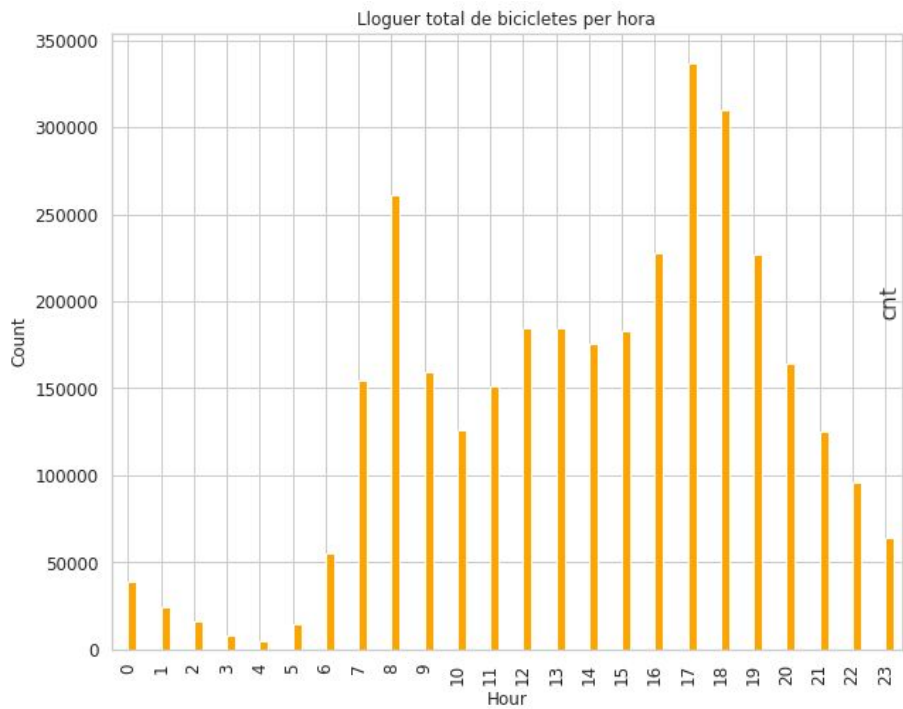


Pràctica 1: Regressió

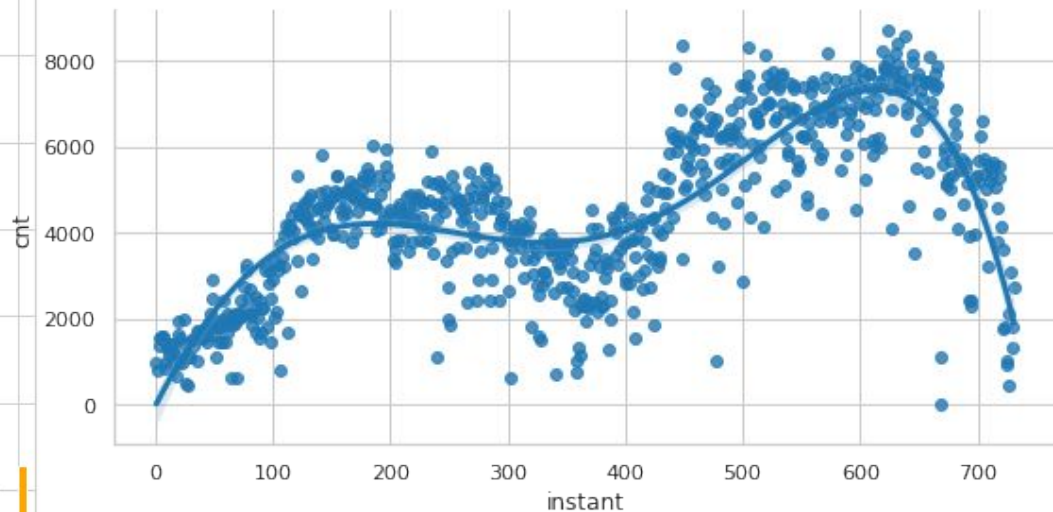
Universitat Autònoma de Barcelona | Aprenentatge
Computacional - MatCAD

Datasets

Hours

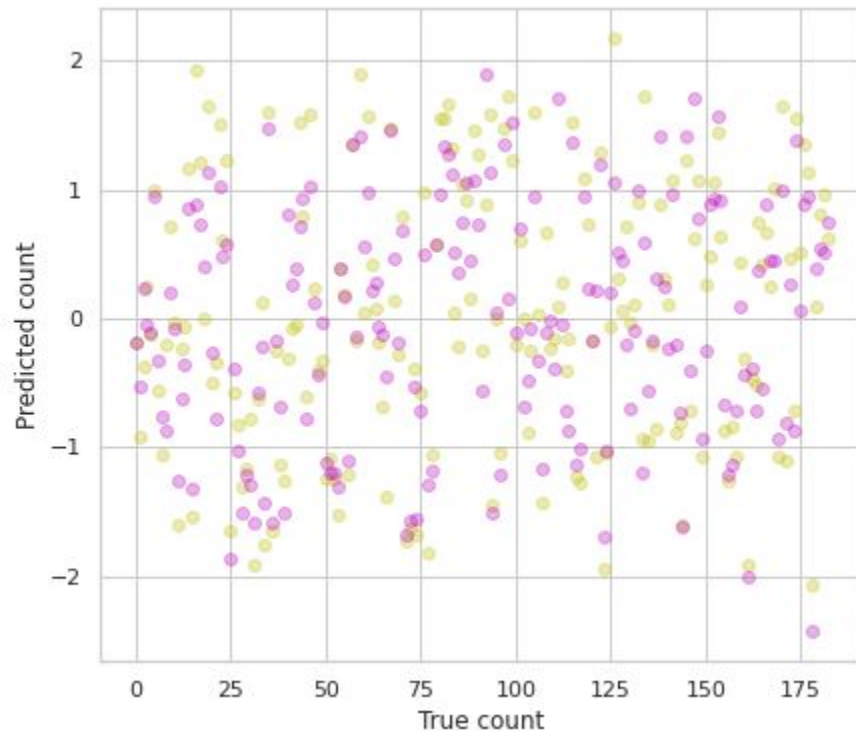
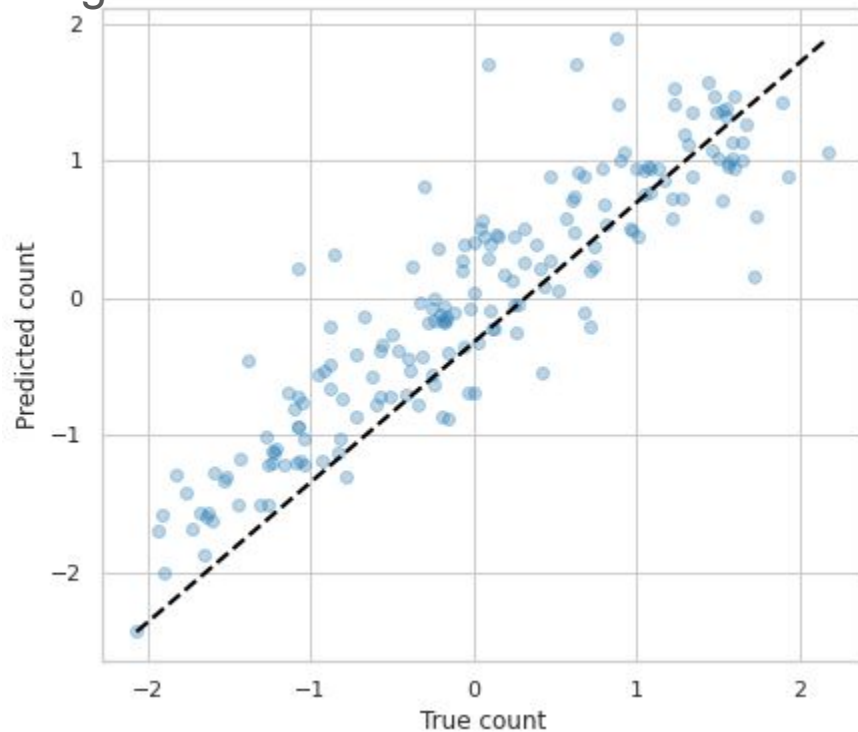


Days



Resultats de la Regressió

Regressor lineal



Resultats de la Regressió

| | | Linear Regressor | Lasso (alpha=0.0001) | Ridge (alpha=0.0001) |
|-----------------|----------------|-------------------|----------------------|----------------------|
| All features | Training Score | 0.795486443346533 | 0.797157209333153 | 0.783494727668732 |
| | Test Score | 0.81053919511654 | 0.733623657452098 | 0.831019451749201 |
| Best K Features | Best K | 6 | 6 | 6 |
| | Training Score | 0.797890850105543 | 0.775029402917329 | 0.768719951577013 |
| | Test Score | 0.721283822193544 | 0.757078257109157 | 0.796659016670986 |
| PCA | PCA components | 8 | 9 | 11 |
| | Training Score | 0.787826907285859 | 0.756503771570763 | 0.80628662932398 |
| | Test Score | 0.734094844167238 | 0.781600954421178 | 0.759752719860412 |

Regressió polinomial i altres regressors

| | Polynomial Regressor | Random forest | Gradient boosting |
|----------------|----------------------|-------------------|---------------------|
| Params | Best degree = 2 | # of trees = 100 | learning rate = 0.1 |
| Training Score | 0.900721875124621 | 0.981852455255317 | 0.963316492801609 |
| Test Score | 0.827211211129234 | 0.909821614463845 | 0.90825706398347 |

Descens del gradient

