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SVR: support vector regression A.1 Model Training In [144... from sklearn.svm import SVR In [145... #create object svr = SVR()In [146... svr.fit(x train, y train) #1. to model a data, only training data is needed Out[146... ▼ SVR SVR() A.2 Prediction In [147... svr_pred=svr.predict(x_test) svr_pred Out[147... array([0.86448478, 0.86417389, 0.64993814, 0.85127578, 0.70546036, 0.7574019 , 0.64562856, 0.8374946 , 0.60540491, 0.7499413 , 0.87245167, 0.80905978, 0.8501926, 0.67828992, 0.79563367, $\hbox{\tt 0.73813638, 0.70599962, 0.74942901, 0.74397623, 0.62461368, }$ 0.74524207, 0.62023823, 0.59939887, 0.86498548, 0.47403454, 0.86577212, 0.73739421, 0.5349166 , 0.66114659, 0.6681512 , 0.88063063, 0.75792351, 0.59757618, 0.659533 , 0.72195655, 0.86222102, 0.81603033, 0.66700444, 0.66986721, 0.70308992, $\hbox{\tt 0.86541166, 0.59529725, 0.69816638, 0.87297663, 0.85464852, }$ 0.50589332, 0.56266899, 0.65426092, 0.77984391, 0.72964663, $0.79144637,\ 0.68053493,\ 0.54289505,\ 0.60234504,\ 0.65093636,$ $\hbox{\tt 0.79311027, 0.83658814, 0.61545878, 0.68815676, 0.86796428, }$ $\hbox{\tt 0.61411511, 0.82414663, 0.73731365, 0.50901921, 0.83202811,}\\$ 0.5044696 , 0.70643466, 0.71803499, 0.52797734, 0.69684074, 0.89743609, 0.55063192, 0.57081914, 0.73056104, 0.69386262, $\hbox{0.65412584, 0.67213476, 0.73045228, 0.8521948, 0.72469225, }$ 0.64563757, 0.66509614, 0.61956285, 0.7728156 , 0.76073394, $0.82042555,\ 0.81901496,\ 0.60273855,\ 0.73071117,\ 0.85829731,$ 0.83211108, 0.60919266, 0.52142804, 0.74445065, 0.77577819, 0.70713967, 0.69439547, 0.86941895, 0.46678478, 0.69624509, 0.76897481, 0.86613133, 0.68693638, 0.74092936, 0.86513894, 0.4753147 , 0.77694577, 0.49680713, 0.76204858, 0.82616497, 0.47006965, 0.72691457, 0.68481788, 0.64006911, 0.69851436, 0.64063286, 0.69331741, 0.49445663, 0.74667101, 0.73464907, 0.63246319, 0.88207478, 0.78364637, 0.79318457, 0.81335894]) **A.3 Performance Matrics** R square and adjusted R square In [148... from sklearn.metrics import r2 score score=r2 score(y test,svr pred) print(score) print('r2 score:', round(score*100.00,3)) 0.7570051002718874 r2 score: 75.701 In [150... ## Adjusted R square #display adjusted R-squared $1 - (1-score) * (len(y_test)-1) / (len(y_test)-x_test.shape[1]-1)$ 0.7424669438778977 Out[150... In []: