比特幣全部(Evaluate on held out training=0.3)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 資料集 | Train | | | Test | | |
| MAE | MAPE | RMSE | MAE | MAPE | RMSE |
| 線性迴歸 | 137.7124 | 3.1697 | 289.4985 | 956.6456 | 2.715 | 1394.8989 |
| SVM | 135.1549 | 2.9098 | 295.1449 | **912.4505** | **2.5398** | **1365.1765** |
| 隨機森林 | **92.4403** | **8.3855** | **136.9155** | 16280.2714 | 38.9581 | 20772.2527 |
| Holt-Winters | 298.4938 | 5.4815 | 581.7033 | 1888.4202 | 5.3096 | 2655.0415 |

比特幣全部(Evaluate on held out training=0.2)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 資料集 | Train | | | Test | | |
| MAE | MAPE | RMSE | MAE | MAPE | RMSE |
| 線性迴歸 | 299.1729 | 4.087 | 715.7188 | 1207.4761 | 4.546 | 1435.4923 |
| SVM | 299.4418 | 4.6887 | 720.6602 | **871.2547** | **3.0761** | **1141.5552** |
| 隨機森林 | **282.9675** | **23.6511** | **406.3982** | 5141.4172 | 21.4907 | 5603.322 |
| Holt-Winters | 619.4679 | 5.6119 | 1415.7438 | 1425.1652 | 4.7124 | 1968.2855 |

比特幣全部(Evaluate on held out training=0.1)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 資料集 | Train | | | Test | | |
| MAE | MAPE | RMSE | MAE | MAPE | RMSE |
| 線性迴歸 | 363.7813 | 3.1779 | 782.117 | 177.5363 | 0.6011 | 260.7088 |
| SVM | 364.8807 | 3.8898 | 785.2084 | **163.1277** | **0.5519** | **256.4969** |
| 隨機森林 | **299.8742** | **17.9336** | **419.9437** | 202.1724 | 0.688 | 240.5839 |
| Holt-Winters | 783.5873 | 5.4363 | 1545.4479 | 619.1845 | 2.1235 | 738.4078 |

比特幣全部(Evaluate on held out training=7)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 資料集 | Train | | | Test | | |
| MAE | MAPE | RMSE | MAE | MAPE | RMSE |
| 線性迴歸 | 363.7813 | 3.1779 | 782.117 | 177.5363 | 0.6011 | 260.7088 |
| SVM | 364.8807 | 3.8898 | 785.2084 | **163.1277** | **0.5519** | **256.4969** |
| 隨機森林 | **299.8742** | **17.9336** | **419.9437** | 202.1724 | 0.688 | 240.5839 |
| Holt-Winters | 783.5873 | 5.4363 | 1545.4479 | 619.1845 | 2.1235 | 738.4078 |

比特幣去除前兩年(Evaluate on held out training=0.3)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 資料集 | Train | | | Test | | |
| MAE | MAPE | RMSE | MAE | MAPE | RMSE |
| 線性迴歸 | 349.8536 | 2.9099 | 757.9405 | **861.0209** | **2.7108** | **1204.845** |
| SVM | 347.2656 | 2.9412 | 765.6565 | 1147.0644 | 3.9128 | 1413.762 |
| 隨機森林 | **266.5376** | **5.6880** | **389.8285** | 5142.8048 | 21.317 | 5944.5961 |
| Holt-Winters | 762.6160 | 6.1412 | 1514.3655 | 1571.0243 | 4.7983 | 2212.557 |

比特幣去除前兩年 (Evaluate on held out training=0.2)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 資料集 | Train | | | Test | | |
| MAE | MAPE | RMSE | MAE | MAPE | RMSE |
| 線性迴歸 | 459.9930 | 3.0304 | 917.6840 | 749.8365 | 3.1332 | 934.1522 |
| SVM | 456.8791 | 2.9972 | 922.3858 | **638.1438** | **2.6121** | **841.7617** |
| 隨機森林 | **325.9556** | **5.4547** | **472.3749** | 6326.9336 | 28.6201 | 6718.4269 |
| Holt-Winters | 984.2643 | 6.0506 | 1814.2805 | 1111.9436 | 4.4798 | 1519.2761 |

比特幣去除前兩年 (Evaluate on held out training=0.1)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 資料集 | Train | | | Test | | |
| MAE | MAPE | RMSE | MAE | MAPE | RMSE |
| 線性迴歸 | 478.3779 | 3.2076 | 915.1068 | 466.9845 | 1.8234 | 640.7243 |
| SVM | 473.9315 | 3.1039 | 918.9813 | **417.1298** | **1.6506** | **598.7634** |
| 隨機森林 | **325.7061** | **4.9680** | **461.8139** | 1154.5675 | 4.4488 | 1462.9379 |
| Holt-Winters | 1015.4550 | 5.9454 | 1804.7670 | 965.4660 | 3.8333 | 1275.7009 |

比特幣去除前兩年 (Evaluate on held out training=7)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 資料集 | Train | | | Test | | |
| MAE | MAPE | RMSE | MAE | MAPE | RMSE |
| 線性迴歸 | 466.3863 | 2.8089 | 888.7746 | 176.8809 | 0.5989 | 261.0616 |
| SVM | 464.6195 | 2.7976 | 893.0523 | 172.2085 | 0.5833 | 259.1532 |
| 隨機森林 | **316.0384** | **4.5092** | **449.5560** | **162.7401** | **0.5533** | **221.9851** |
| Holt-Winters | 1011.4618 | 5.7399 | 1760.099 | 619.1845 | 2.1235 | 738.4078 |

比特幣去除前四年(Evaluate on held out training=0.3)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 資料集 | Train | | | Test | | |
| MAE | MAPE | RMSE | MAE | MAPE | RMSE |
| 線性迴歸 | 596.5676 | 2.7502 | 1088.8634 | 844.3521 | 3.4747 | 1058.4416 |
| SVM | 587.8500 | 2.5884 | 1097.8551 | **822.4535** | **3.3003** | **1022.7547** |
| 隨機森林 | **363.8530** | **2.5477** | **530.4038** | 7349.1592 | 33.0505 | 7962.2961 |
| Holt-Winters | 1276.8101 | 5.6807 | 2180.1914 | 1200.0582 | 4.5933 | 1656.0368 |

比特幣去除前四年 (Evaluate on held out training=0.2)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 資料集 | Train | | | Test | | |
| MAE | MAPE | RMSE | MAE | MAPE | RMSE |
| 線性迴歸 | 625.5768 | 2.7106 | 1101.3973 | 769.6357 | 3.0986 | 996.3484 |
| SVM | 617.3041 | 2.5735 | 1107.4037 | **506.2214** | **2.1349** | **694.7119** |
| 隨機森林 | **377.1698** | **2.4230** | **535.6765** | 1705.6093 | 8.5664 | 2197.4185 |
| Holt-Winters | 1334.1691 | 5.6781 | 2191.1968 | 940.7383 | 4.0595 | 1245.6954 |

比特幣去除前四年 (Evaluate on held out training=0.1)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 資料集 | Train | | | Test | | |
| MAE | MAPE | RMSE | MAE | MAPE | RMSE |
| 線性迴歸 | 592.6256 | 2.5698 | 1055.5321 | 690.6409 | 2.4918 | 852.5735 |
| SVM | 587.4012 | 2.4967 | 1060.3533 | **495.7383** | **1.8177** | **669.7878** |
| 隨機森林 | **363.7260** | **2.3083** | **521.5083** | 1354.5580 | 4.9103 | 1617.787 |
| Holt-Winters | 1273.4706 | 5.5058 | 2093.5124 | 1075.6218 | 3.9404 | 1394.6989 |

比特幣去除前四年 (Evaluate on held out training=7)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 資料集 | Train | | | Test | | |
| MAE | MAPE | RMSE | MAE | MAPE | RMSE |
| 線性迴歸 | 576.6509 | 2.4397 | 1023.8132 | 166.1067 | 0.5623 | 259.3265 |
| SVM | 572.9972 | 2.3977 | 1027.7055 | **166.0129** | **0.5621** | **239.2898** |
| 隨機森林 | **346.8168** | **2.1259** | **493.3013** | 195.3610 | 0.6665 | 243.8312 |
| Holt-Winters | 1255.6469 | 5.3575 | 2036.1991 | 619.1845 | 2.1235 | 738.4078 |