|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Groups*** | ***Count*** | ***Sum*** | ***Average*** | ***Variance*** |
| 90 | 5 | 1.3402 | 0.26804 | 0.0001619 |
| 110 | 5 | 1.2126 | 0.24252 | 1.469E-05 |
| 130 | 5 | 1.2419 | 0.24838 | 9.871E-05 |
| 150 | 5 | 1.2667 | 0.25334 | 0.000112 |
| 170 | 5 | 1.259 | 0.2518 | 1.285E-05 |
| 190 | 5 | 1.2023 | 0.24046 | 9.523E-06 |
| 210 | 5 | 1.2568 | 0.25136 | 1.564E-05 |
| 230 | 5 | 1.2338 | 0.24676 | 7.43E-07 |
| 250 | 5 | 1.2509 | 0.25018 | 1.183E-05 |
| 270 | 5 | 1.2457 | 0.24914 | 3.945E-05 |
| 290 | 5 | 1.2662 | 0.25324 | 3.227E-05 |

ANOVA Model = MW-1D-CNN. Testing differences between numbers of packets for each device.

Based on Loss of Model

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Source of Variation*** | ***SS*** | ***df*** | ***MS*** | ***F*** | ***P-value*** | ***F crit*** |
| Between Groups | 0.002553 | 10 | 0.0002553 | 5.5107532 | 2.88E-05 | 2.053901 |
| Within Groups | 0.002038 | 44 | 4.632E-05 |  |  |  |
|  |  |  |  |  |  |  |
| Total | 0.004591 | 54 |  |  |  |  |

ANOVA Model = CNN 1D. Testing Differences between numbers of packets between each device.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Groups*** | ***Count*** | ***Sum*** | ***Average*** | ***Variance*** |
| 190 | 5 | 1.2896 | 0.25792 | 6.77E-07 |
| 210 | 5 | 1.2605 | 0.2521 | 1.721E-05 |
| 230 | 5 | 1.3005 | 0.2601 | 4.449E-05 |
| 250 | 5 | 1.3192 | 0.26384 | 3.093E-05 |
| 270 | 5 | 1.2849 | 0.25698 | 3.821E-05 |
| 290 | 5 | 1.2655 | 0.2531 | 3.96E-05 |
| ***Source of Variation*** | ***SS*** | ***df*** | ***MS*** | ***F*** | ***P-value*** | ***F crit*** |
| Between Groups | 0.000479 | 5 | 9.577E-05 | 3.3581093 | 0.019336 | 2.620654 |
| Within Groups | 0.000684 | 24 | 2.852E-05 |  |  |  |
|  |  |  |  |  |  |  |
| Total | 0.001163 | 29 |  |  |  |  |

ANOVA Model = CNN 2D Testing Differences between numbers of packets between each device.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***Groups*** | ***Count*** | ***Sum*** | ***Average*** | ***Variance*** | |
| 10 | 5 | 1.2321 | 0.24642 | 1.112E-06 | |
| 30 | 5 | 1.234 | 0.2468 | 3.71E-06 | |
| 50 | 5 | 1.2573 | 0.25146 | 8.106E-05 | |
| 70 | 5 | 1.2335 | 0.2467 | 1.365E-05 | |
| 90 | 5 | 1.2428 | 0.24856 | 3.958E-06 | |
| 110 | 5 | 1.2469 | 0.24938 | 1.215E-05 | |
| 130 | 5 | 1.2549 | 0.25098 | 2.181E-05 | |
| 150 | 5 | 1.2381 | 0.24762 | 3.855E-05 | |
| 170 | 5 | 1.2338 | 0.24676 | 1.89E-05 | |
| 190 | 5 | 1.2389 | 0.24778 | 4.317E-06 | |
| 210 | 5 | 1.2239 | 0.24478 | 1.053E-05 | |
| 230 | 5 | 1.2672 | 0.25344 | 1.024E-05 | |
| 250 | 5 | 1.2403 | 0.24806 | 1.923E-05 | |
| 270 | 5 | 1.25161 | 0.250322 | 4.653E-05 | |
| 290 | 5 | 1.2717 | 0.25434 | 0.0001062 | |
| ***Source of Variation*** | ***SS*** | ***df*** | ***MS*** | ***F*** | ***P-value*** | | ***F crit*** |
| Between Groups | 0.00052 | 14 | 3.714E-05 | 1.4215225 | 0.171557 | | 1.860242 |
| Within Groups | 0.001568 | 60 | 2.613E-05 |  |  | |  |
|  |  |  |  |  |  | |  |
| Total | 0.002088 | 74 |  |  |  | |  |



*Figure 1:* AUC-ROC of Optimized 1D-CNN



*Figure 2:* Zoomed in AUC-ROC of Optimized 1D-CNN



*Figure 3:* Precision-Recall Curve of Optimized 1D-CNN

**

*Figure 4:* Weighted Precision-Recall Curve of Optimized 1D-CNN



*Figure 5:* AUC-ROC of Optimized MW-1D-CNN



*Figure 6:* Zoomed in AUC-ROC of Optimized MW-1D-CNN



*Figure 7:* Precision-Recall Curve of Optimized MW-1D-CNN



*Figure 8:* Weighted Precision-Recall Curve of Optimized MW-1D-CNN



*Figure 9:* AUC-ROC of Optimized 2D-CNN



*Figure 10:* Zoomed in AUC-ROC of Optimized 2D-CNN



*Figure 11:* Precision-Recall Curve of Optimized 2D-CNN



*Figure 12:* Weighted Precision-Recall Curve of Optimized 2D-CNN