Cloud : Tesla T4, 15079MB

LR : 0.2 – 0.01

Model : YOLO

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Batch size | Epoch | User time (seconds) | Percent of CPU this job got | Maximum resident set size (kbytes) | NVPROF  Avg time for Biggest GPU activity\* | Precision | Recall | Objectness  Score | Classification  Score |
| 4 | 1 | 59.68 | 20% | 8078296 | 216.13us | 0 | 0 | 0.1282 | 0.03834 |
| 4 | 5 | 219.07 | 124% | 8127668 | 209.45us | 0.1041 | 0.3146 | 0.1443 | 0.01785 |
| 4 | 10 | 412.60 | 124% | 8145492 | 228.89us | 0.4084 | 0.9464 | 0.1257 | 0.01051 |
| 4 | 20 | 800.69 | 125% | 8249352 | 209.24us | 0.5478 | 0.9803 | 0.115 | 0.003764 |
| 8 | 1 | 43.49 | 106% | 8058616 | 404.16us | 0 | 0 | 0.1263 | 0.03874 |
| 8 | 5 | 157.79 | 107% | 8037768 | 403.41us | 0.1001 | 0.1917 | 0.1548 | 0.02282 |
| 8 | 10 | 288.97 | 98% | 8132920 | 406.81us | 0.4042 | 0.51 | 0.137 | 0.01418 |
| 8 | 20 | 557.73 | 107% | 8145180 | 408.72us | 0.5477 | 0.9834 | 0.1197 | 0.005045 |
| 16 | 1 | 39.03 | 104% | 8026880 | 831.73us | 0 | 0 | 0.1227 | 0.03905 |
| 16 | 5 | 127.21 | 100% | 8103536 | 793.00us | 0.1392 | 0.002035 | 0.1618 | 0.02621 |
| 16 | 10 | 232.83 | 91% | 8168672 | 790.48us | 0.09563 | 0.3475 | 0.1449 | 0.0165 |
| 16 | 20 | 430.76 | 89% | 7937896 | 787.32us | 0.4309 | 0.9302 | 0.126 | 0.01053 |
| 32 | 1 | 36.94 | 96% | 8188700 | 1.5461ms | 0 | 0 | 0.121 | 0.03939 |
| 32 | 5 | 100.20 | 91% | 8167160 | 1.5375ms | 0 | 0 | 0.1598 | 0.02832 |
| 32 | 10 | 188.09 | 82% | 8247332 | 1.5436ms | 0.08012 | 0.2426 | 0.1582 | 0.01984 |
| 32 | 20 | 358.07 | 77% | 8024508 | 1.5376ms | 0.4358 | 0.5017 | 0.1361 | 0.01332 |

\* GPU Process Name: turing\_s1688cudnn\_fp16\_128x128\_ldg8\_wgrad\_idx\_exp\_interior\_nhwc\_nt\_v1

Cloud : Tesla T4, 15079MB

LR : 0.2 – 0.01

Model : YOLO Tiny

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Batch size | Epoch | User time (seconds) | Percent of CPU this job got | Maximum resident set size (kbytes) | NVPROF  Avg time for Biggest GPU activity\* | Precision | Recall | Objectness  Score | Classification  Score |
| 4 | 1 | 35.41 | 86% | 7791772 | 493.46us | 0.3333 | 0.000407 | 0.3489 | 0.03383 |
| 4 | 5 | 113.99 | 142% | 7872560 | 519.20us | 0.1224 | 0.2856 | 0.3949 | 0.01768 |
| 4 | 10 | 211.06 | 148% | 7983268 | 498.96us | 0.4919 | 0.7248 | 0.3522 | 0.01251 |
| 4 | 20 | 403.25 | 149% | 8031684 | 576.02us | 0.4631 | 0.9638 | 0.3704 | 0.004965 |
| 8 | 1 | 31.69 | 118% | 7791604 | 834.39us | 0 | 0 | 0.3443 | 0.03426 |
| 8 | 5 | 89.82 | 135% | 7906188 | 787.11us | 0.07403 | 0.2478 | 0.3863 | 0.02012 |
| 8 | 10 | 159.81 | 140% | 7991160 | 857.89us | 0.3285 | 0.4478 | 0.3554 | 0.01533 |
| 8 | 20 | 305.24 | 144% | 8043184 | 921.07us | 0.3907 | 0.9397 | 0.3734 | 0.007637 |
| 16 | 1 | 31.04 | 121% | 7831888 | 1.2530ms | 0 | 0 | 0.3388 | 0.03472 |
| 16 | 5 | 72.78 | 120% | 7971648 | 1.0918ms | 0.06874 | 0.2362 | 0.3887 | 0.02186 |
| 16 | 10 | 133.78 | 132% | 8068780 | 612.43us | 0.09037 | 0.3128 | 0.3535 | 0.01665 |
| 16 | 20 | 254.68 | 136% | 8055140 | 1.1414ms | 0.3875 | 0.7995 | 0.3815 | 0.01247 |
| 32 | 1 | 30.89 | 121% | 7997356 | 971.44us | 0 | 0 | 0.3311 | 0.03511 |
| 32 | 5 | 67.87 | 123% | 8032080 | 818.98us | 0.1123 | 0.06577 | 0.4088 | 0.02338 |
| 32 | 10 | 125.99 | 140% | 8166852 | 792.54us | 0.06413 | 0.2804 | 0.3506 | 0.01776 |
| 32 | 20 | 229.88 | 138% | 8271416 | 1.7303ms | 0.3208 | 0.4627 | 0.3851 | 0.01511 |

\*GPU Process Name: turing\_s1688cudnn\_fp16\_128x128\_ldg8\_wgrad\_idx\_exp\_interior\_nhwc\_nt\_v1

BareMetal : Tesla P40, 22919MB

LR : 0.2 – 0.01

Model : YOLO

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Batch size | Epoch | User time (seconds) | Percent of CPU this job got | Maximum resident set size (kbytes) | NVPROF  Avg time for Biggest GPU activity\* | Precision | Recall | Objectness  Score | Classification  Score |
| 4 | 1 | 64.36 | 87% | 4446340 | 536.73us | 0 | 0 | 0.1311 | 0.03814 |
| 4 | 5 | 237.12 | 98% | 4536808 | 535.41us | 0.09708 | 0.3486 | 0.1499 | 0.01811 |
| 4 | 10 | 441.65 | 99% | 8638968 | 534.50us | 0.3902 | 0.9296 | 0.1257 | 0.01085 |
| 4 | 20 | 860.14 | 99% | 16842640 | 535.31us | 0.5031 | 0.9835 | 0.1114 | 0.004033 |
| 8 | 1 | 46.49 | 96% | 4530028 | 1.0198ms | 0 | 0 | 0.1361 | 0.03849 |
| 8 | 5 | 164.83 | 98% | 4579324 | 1.0203ms | 0.1114 | 0.1734 | 0.1517 | 0.02264 |
| 8 | 10 | 300.99 | 99% | 5276692 | 1.0207ms | 0.3616 | 0.495 | 0.1387 | 0.01367 |
| 8 | 20 | 563.84 | 99% | 9962264 | 1.0192ms | 0.573 | 0.9807 | 0.112 | 0.005232 |
| 16 | 1 | 37.34 | 94% | 4676540 | 2.0153ms | 0 | 0 | 0.1324 | 0.03895 |
| 16 | 5 | 119.94 | 97% | 4792180 | 2.0123ms | 0.3333 | 0.002409 | 0.1593 | 0.02588 |
| 16 | 10 | 226.52 | 98% | 4894208 | 2.0142ms | 0.08948 | 0.3385 | 0.1476 | 0.01615 |
| 16 | 20 | 416.45 | 99% | 6382660 | 2.0382ms | 0.426 | 0.9488 | 0.1187 | 0.01102 |
| 32 | 1 | 35.80 | 93% | 4905660 | 3.9772ms | 0 | 0 | 0.1301 | 0.03931 |
| 32 | 5 | 99.48 | 97% | 4998552 | 3.9899ms | 0 | 0 | 0.1567 | 0.02835 |
| 32 | 10 | 187.84 | 98% | 5194808 | 3.9758ms | 0.07667 | 0.2491 | 0.1617 | 0.01912 |
| 32 | 20 | 349.26 | 98% | 5261972 | 3.9723ms | 0.4492 | 0.5051 | 0.1269 | 0.01403 |

\* GPU Process Name: maxwell\_fp16\_scudnn\_winograd\_fp16\_fp32\_128x128\_ldg1\_ldg4\_tile228n\_nt

BareMetal : Tesla P40, 22919MB

LR : 0.2 – 0.01

Model : YOLO Tiny

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Batch size | Epoch | User time (seconds) | Percent of CPU this job got | Maximum resident set size (kbytes) | NVPROF  Avg time for Biggest GPU activity\* | Precision | Recall | Objectness  Score | Classification  Score |
| 4 | 1 | 31.41 | 97% | 4138872 | 307.62us | 0 | 0 | 0.3455 | 0.03378 |
| 4 | 5 | 117.00 | 99% | 4259288 | 297.86us | 0.1039 | 0.3165 | 0.379 | 0.01791 |
| 4 | 10 | 216.31 | 99% | 4466392 | 310.17us | 0.415 | 0.752 | 0.388 | 0.01168 |
| 4 | 20 | 393.42 | 99% | 7143760 | 313.74us | 0.4289 | 0.969 | 0.3633 | 0.005112 |
| 8 | 1 | 27.35 | 98% | 4255216 | 520.55us | 0 | 0 | 0.338 | 0.0341 |
| 8 | 5 | 84.10 | 99% | 4376384 | 520.37us | 0.07189 | 0.2482 | 0.3741 | 0.0204 |
| 8 | 10 | 155.67 | 99% | 4551084 | 544.44us | 0.1691 | 0.354 | 0.39 | 0.01529 |
| 8 | 20 | 292.14 | 99% | 4871752 | 558.41us | 0.4673 | 0.9108 | 0.367 | 0.007233 |
| 16 | 1 | 26.23 | 98% | 4487624 | 653.85us | 0 | 0 | 0.3315 | 0.03449 |
| 16 | 5 | 69.10 | 99% | 4599892 | 595.89us | 0.07061 | 0.2212 | 0.3747 | 0.02196 |
| 16 | 10 | 125.14 | 99% | 4770032 | 585.13us | 0.08782 | 0.2987 | 0.3832 | 0.01689 |
| 16 | 20 | Job Failed | Job Failed | Job  Failed | Job  Failed | Job  Failed | Job Failed | Job  Failed | Job  Failed |
| 32 | 1 | 28.16 | 98% | 4626496 | 1.4311ms | 0 | 0 | 0.3231 | 0.0349 |
| 32 | 5 | 64.06 | 99% | 4804504 | 1.2067ms | 0.1158 | 0.05495 | 0.3911 | 0.02353 |
| 32 | 10 | 112.38 | 99% | 4931232 | 1.1705ms | 0.05975 | 0.3012 | 0.3855 | 0.0181 |
| 32 | 20 | 207.22 | 99% | 5136484 | 1.1501ms | 0.3804 | 0.4844 | 0.3772 | 0.01412 |

\*GPU Process Name: maxwell\_fp16\_scudnn\_winograd\_fp16\_fp32\_128x128\_ldg1\_ldg4\_tile228n\_nt