

accuracy

| | epoch | clean_test | noisy_subset | clean_subset | cleaned_noisy_subset |
|----|---------|------------|--------------|---------------------|----------------------|
| 0 | 500.0 | 0.1176 | 0.0089 | 0.11983333333333330 | 0.11065 |
| 1 | 1000.0 | 0.1561 | 0.0095 | 0.15896666666666667 | 0.1482 |
| 2 | 1500.0 | 0.1867 | 0.00995 | 0.18786666666666665 | 0.17515 |
| 3 | 2000.0 | 0.2253 | 0.0089 | 0.23303333333333334 | 0.22025 |
| 4 | 2500.0 | 0.2627 | 0.00915 | 0.2623 | 0.2385 |
| 5 | 3000.0 | 0.2733 | 0.00895 | 0.2855333333333333 | 0.26345 |
| 6 | 3500.0 | 0.2954 | 0.0095 | 0.3000333333333333 | 0.27445 |
| 7 | 4000.0 | 0.3347 | 0.00825 | 0.34246666666666664 | 0.30725 |
| 8 | 4500.0 | 0.3754 | 0.00895 | 0.3762 | 0.3418 |
| 9 | 5000.0 | 0.3733 | 0.00915 | 0.38483333333333336 | 0.3465 |
| 10 | 5500.0 | 0.3953 | 0.00875 | 0.4125 | 0.3658 |
| 11 | 6000.0 | 0.4068 | 0.00865 | 0.4129 | 0.371 |
| 12 | 6500.0 | 0.4194 | 0.00785 | 0.4381333333333333 | 0.39245 |
| 13 | 7000.0 | 0.4374 | 0.00885 | 0.46303333333333335 | 0.4094 |
| 14 | 7500.0 | 0.4283 | 0.0098 | 0.46276666666666666 | 0.41045 |
| 15 | 8000.0 | 0.4257 | 0.0092 | 0.45403333333333334 | 0.4026 |
| 16 | 8500.0 | 0.4546 | 0.0101 | 0.4750333333333333 | 0.41975 |
| 17 | 9000.0 | 0.4521 | 0.00965 | 0.4859 | 0.42405 |
| 18 | 9500.0 | 0.4387 | 0.0094 | 0.4684 | 0.402 |
| 19 | 10000.0 | 0.4836 | 0.00925 | 0.51563333333333334 | 0.4403 |
| 20 | 10500.0 | 0.4695 | 0.0102 | 0.5042 | 0.4295 |
| 21 | 11000.0 | 0.4743 | 0.0098 | 0.5196333333333333 | 0.44545 |
| 22 | 11500.0 | 0.4685 | 0.0107 | 0.5134 | 0.43805 |
| 23 | 12000.0 | 0.4649 | 0.01065 | 0.4924333333333333 | 0.4154 |
| 24 | 12500.0 | 0.4947 | 0.00915 | 0.5433 | 0.45445 |
| 25 | 13000.0 | 0.5134 | 0.0103 | 0.5669333333333333 | 0.47405 |
| 26 | 13500.0 | 0.5008 | 0.0116 | 0.5502666666666667 | 0.4609 |
| 27 | 14000.0 | 0.4882 | 0.0116 | 0.5296666666666666 | 0.4378 |
| 28 | 14500.0 | 0.5132 | 0.0115 | 0.55303333333333334 | 0.4563 |
| 29 | 15000.0 | 0.4973 | 0.01125 | 0.5538333333333333 | 0.4538 |
| 30 | 15500.0 | 0.4823 | 0.01115 | 0.5434666666666667 | 0.4393 |

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|----|---------|--------|---------|--------------------|---------|
| 31 | 16000.0 | 0.5081 | 0.0114 | 0.5480333333333334 | 0.44905 |
| 32 | 16500.0 | 0.5157 | 0.01145 | 0.5715 | 0.46615 |
| 33 | 17000.0 | 0.4973 | 0.01205 | 0.5633333333333334 | 0.4561 |
| 34 | 17500.0 | 0.4973 | 0.0125 | 0.5628333333333333 | 0.4556 |
| 35 | 18000.0 | 0.5182 | 0.01265 | 0.5809666666666666 | 0.47575 |
| 36 | 18500.0 | 0.5064 | 0.0113 | 0.5672333333333334 | 0.4627 |
| 37 | 19000.0 | 0.5268 | 0.0129 | 0.6036 | 0.4826 |
| 38 | 19500.0 | 0.4979 | 0.0112 | 0.5773666666666667 | 0.46555 |
| 39 | 20000.0 | 0.5448 | 0.01205 | 0.6212333333333333 | 0.5076 |
| 40 | 20500.0 | 0.6415 | 0.0141 | 0.7538 | 0.60705 |
| 41 | 21000.0 | 0.6523 | 0.0157 | 0.7836333333333333 | 0.61695 |
| 42 | 21500.0 | 0.6613 | 0.01935 | 0.8022 | 0.61875 |
| 43 | 22000.0 | 0.662 | 0.0237 | 0.8157333333333333 | 0.6224 |
| 44 | 22500.0 | 0.6607 | 0.0243 | 0.8287333333333333 | 0.62155 |
| 45 | 23000.0 | 0.6621 | 0.028 | 0.8344333333333334 | 0.61995 |
| 46 | 23500.0 | 0.6636 | 0.03045 | 0.8440333333333333 | 0.62095 |
| 47 | 24000.0 | 0.6671 | 0.03345 | 0.8525333333333334 | 0.6168 |
| 48 | 24500.0 | 0.6666 | 0.0364 | 0.8585666666666667 | 0.62075 |
| 49 | 25000.0 | 0.6639 | 0.0373 | 0.8629 | 0.6189 |
| 50 | 25500.0 | 0.6652 | 0.0416 | 0.8666666666666667 | 0.6188 |
| 51 | 26000.0 | 0.6689 | 0.04265 | 0.8687666666666667 | 0.6214 |
| 52 | 26500.0 | 0.6572 | 0.04625 | 0.8706 | 0.6218 |
| 53 | 27000.0 | 0.6641 | 0.0464 | 0.8755 | 0.62175 |
| 54 | 27500.0 | 0.6597 | 0.04805 | 0.8753333333333333 | 0.6188 |
| 55 | 28000.0 | 0.6632 | 0.04815 | 0.8751 | 0.62205 |
| 56 | 28500.0 | 0.6572 | 0.04705 | 0.8723333333333333 | 0.6205 |
| 57 | 29000.0 | 0.6619 | 0.04795 | 0.8746666666666667 | 0.62065 |
| 58 | 29500.0 | 0.66 | 0.04895 | 0.8730333333333333 | 0.62185 |
| 59 | 30000.0 | 0.6539 | 0.05165 | 0.8713 | 0.62295 |
| 60 | 30500.0 | 0.6757 | 0.05415 | 0.8948333333333334 | 0.63155 |
| 61 | 31000.0 | 0.6792 | 0.05625 | 0.8992333333333333 | 0.63445 |
| 62 | 31500.0 | 0.6831 | 0.057 | 0.9037333333333334 | 0.64005 |
| 63 | 32000.0 | 0.6812 | 0.06035 | 0.9047333333333333 | 0.6364 |
| 64 | 32500.0 | 0.6844 | 0.0587 | 0.9048 | 0.6391 |

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|----|---------|--------|---------|--------------------|---------|
| 65 | 33000.0 | 0.6809 | 0.0594 | 0.9064 | 0.64075 |
| 66 | 33500.0 | 0.6801 | 0.06075 | 0.9080666666666667 | 0.63785 |
| 67 | 34000.0 | 0.6797 | 0.06135 | 0.9095 | 0.64295 |
| 68 | 34500.0 | 0.6813 | 0.061 | 0.9085666666666666 | 0.64025 |
| 69 | 35000.0 | 0.6815 | 0.06245 | 0.9101333333333333 | 0.6413 |
| 70 | 35500.0 | 0.6794 | 0.0637 | 0.9121666666666667 | 0.638 |
| 71 | 36000.0 | 0.6832 | 0.0638 | 0.9129333333333334 | 0.6406 |
| 72 | 36500.0 | 0.6829 | 0.06425 | 0.9124333333333333 | 0.63975 |
| 73 | 37000.0 | 0.6817 | 0.0643 | 0.9121666666666667 | 0.64105 |
| 74 | 37500.0 | 0.6817 | 0.0642 | 0.9147 | 0.64035 |
| 75 | 38000.0 | 0.6816 | 0.06485 | 0.9145 | 0.64285 |
| 76 | 38500.0 | 0.6797 | 0.0658 | 0.9150333333333334 | 0.64485 |
| 77 | 39000.0 | 0.6835 | 0.06425 | 0.9155 | 0.6421 |

loss

| | epoch | clean_test | noisy_subset | clean_subset | cleaned_noisy_subset |
|----|--------|--------------------|--------------------|--------------------|----------------------|
| 0 | 500.0 | 3.848474180698395 | 4.917356002179882 | 3.8618107023885693 | 3.8987715908243685 |
| 1 | 1000.0 | 3.6867648720741273 | 4.9314246660546415 | 3.7044936398328363 | 3.756361282324489 |
| 2 | 1500.0 | 3.503365159034729 | 4.982923103284232 | 3.5322027287240756 | 3.5975795214689232 |
| 3 | 2000.0 | 3.332457625865936 | 4.939143271385869 | 3.3757917234453103 | 3.4416056886503967 |
| 4 | 2500.0 | 3.173780006170273 | 4.993284780767899 | 3.215425735813076 | 3.307435162459748 |
| 5 | 3000.0 | 3.0761710345745086 | 5.035890072206907 | 3.1083293627884427 | 3.1981777329988117 |
| 6 | 3500.0 | 3.042284059524536 | 5.005761261227764 | 3.0862100892147777 | 3.197127390511428 |
| 7 | 4000.0 | 2.8118187963962553 | 5.056207705147659 | 2.872162487547276 | 2.9875636191307744 |
| 8 | 4500.0 | 2.6580461084842684 | 5.059374296212498 | 2.734257879903761 | 2.8784193811537344 |
| 9 | 5000.0 | 2.62185223698616 | 5.107495833046829 | 2.656990348282507 | 2.810612458216993 |
| 10 | 5500.0 | 2.5470140099525453 | 5.107386558870726 | 2.5715464232331615 | 2.752149150341372 |
| 11 | 6000.0 | 2.5630495429039 | 5.079326677925979 | 2.572161213826325 | 2.7538131128383587 |
| 12 | 6500.0 | 2.4901670634746553 | 5.092818012720422 | 2.4764342611118897 | 2.6732556005067463 |
| 13 | 7000.0 | 2.393313577771187 | 5.129591483104078 | 2.3768881296707414 | 2.5903524447091018 |
| 14 | 7500.0 | 2.3812902688980104 | 5.1564605568028705 | 2.331096160209785 | 2.557277314270599 |
| 15 | 8000.0 | 2.4533844113349916 | 5.120346739322325 | 2.3987706152059265 | 2.6192281608340107 |
| 16 | 8500.0 | 2.3621508955955504 | 5.098920091798034 | 2.331861138242811 | 2.5761756414099586 |

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|----|---------|--------------------|--------------------|--------------------|--------------------|
| 16 | 8500.0 | 2.3021500933333334 | 5.099920091790094 | 2.331001130943011 | 2.3701730414093300 |
| 17 | 9000.0 | 2.386834365129471 | 5.111014583442785 | 2.2902093378164 | 2.5499794181389146 |
| 18 | 9500.0 | 2.449253487586975 | 5.105381905278073 | 2.35931834932101 | 2.6275568280038955 |
| 19 | 10000.0 | 2.2475839138031004 | 5.122571269168129 | 2.1801749195082714 | 2.4897207066982605 |
| 20 | 10500.0 | 2.261828225851059 | 5.199233145653447 | 2.186450635982772 | 2.477761452711081 |
| 21 | 11000.0 | 2.325156307220459 | 5.0684779203390775 | 2.194933052790367 | 2.5018597886532166 |
| 22 | 11500.0 | 2.282053732872009 | 5.188551745837247 | 2.153035881155628 | 2.4661678241778024 |
| 23 | 12000.0 | 2.2700968384742737 | 5.206592445132099 | 2.1843904782149752 | 2.5225484310826167 |
| 24 | 12500.0 | 2.18297116458416 | 5.193345643297026 | 2.0569708438242897 | 2.3998551338533813 |
| 25 | 13000.0 | 2.083693253993988 | 5.232037864153898 | 1.9247236120498787 | 2.301809639870366 |
| 26 | 13500.0 | 2.1978948056697845 | 5.158777798278423 | 2.0383037328720093 | 2.4018997964979727 |
| 27 | 14000.0 | 2.236465150117874 | 5.138736085046696 | 2.1053304470191567 | 2.503832801987853 |
| 28 | 14500.0 | 2.104802304506302 | 5.214265563819982 | 1.9930036583189237 | 2.384750019145917 |
| 29 | 15000.0 | 2.184917449951172 | 5.208598396446131 | 1.9679205417633057 | 2.3858202982552443 |
| 30 | 15500.0 | 2.2883860945701597 | 5.1700657108162025 | 2.0500138846494385 | 2.4961336021181904 |
| 31 | 16000.0 | 2.1252199918031693 | 5.245279034481773 | 1.9734665690842321 | 2.38512824456903 |
| 32 | 16500.0 | 2.036190727353096 | 5.356977752492398 | 1.8436313665519326 | 2.300322568869289 |
| 33 | 17000.0 | 2.0865060150623322 | 5.380316915391367 | 1.8365018973916263 | 2.311222351050075 |
| 34 | 17500.0 | 2.160245192050934 | 5.420450494259218 | 1.8685662524174835 | 2.358573303946966 |
| 35 | 18000.0 | 2.049199578166008 | 5.549305469174929 | 1.7608880370350208 | 2.235571985003314 |
| 36 | 18500.0 | 2.133433622121811 | 5.390390100358408 | 1.8732237088478219 | 2.3339650781848764 |
| 37 | 19000.0 | 1.9958566069602965 | 5.55497406102434 | 1.6651709968760862 | 2.2032215655604497 |
| 38 | 19500.0 | 2.132500264048576 | 5.664736071719399 | 1.7707672725289554 | 2.27196221110187 |
| 39 | 20000.0 | 1.881063488125801 | 5.718855658663979 | 1.5728895745034945 | 2.0753937159912494 |
| 40 | 20500.0 | 1.490021675825119 | 5.786181075663507 | 1.0148152481701413 | 1.65949875342695 |
| 41 | 21000.0 | 1.4588321417570114 | 5.818667049649395 | 0.9019555474741984 | 1.6322837238070331 |
| 42 | 21500.0 | 1.441976547241211 | 5.77604896207399 | 0.8234946641881588 | 1.6231695458858828 |
| 43 | 22000.0 | 1.4247881710529327 | 5.830994322330137 | 0.7634122417134753 | 1.6190305782269827 |
| 44 | 22500.0 | 1.4222996085882187 | 5.84531566764735 | 0.7117210187144198 | 1.6203258369542375 |
| 45 | 23000.0 | 1.434754690527916 | 5.852076421810102 | 0.6730502558461691 | 1.644450921046583 |
| 46 | 23500.0 | 1.4276238888502122 | 5.900951952873906 | 0.6385938242330389 | 1.646490290195127 |
| 47 | 24000.0 | 1.4324097514152527 | 5.999215814131725 | 0.5971040003380533 | 1.6676168864286398 |
| 48 | 24500.0 | 1.440051183104515 | 6.067983059943477 | 0.5694027454671213 | 1.675155603432957 |
| 49 | 25000.0 | 1.4709316849708558 | 6.161731659611569 | 0.5576408098814851 | 1.7043269691588003 |

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|----|---------|--------------------|--------------------|----------------------|---------------------|
| 50 | 25500.0 | 1.4631916224956512 | 6.239875298512133 | 0.5386064969382044 | 1.7218464145177528 |
| 51 | 26000.0 | 1.477278020977974 | 6.363629576526111 | 0.5364254152370711 | 1.7339246167412288 |
| 52 | 26500.0 | 1.5224881529808045 | 6.462057825885242 | 0.5263891518115997 | 1.7770939099637768 |
| 53 | 27000.0 | 1.5040120482444763 | 6.616213810594776 | 0.5170676768836329 | 1.7966712758510928 |
| 54 | 27500.0 | 1.5649940878152848 | 6.712841534916358 | 0.5277612530073877 | 1.8452946702136268 |
| 55 | 28000.0 | 1.53049855530262 | 6.859894752502441 | 0.5236166076639951 | 1.8444407393660727 |
| 56 | 28500.0 | 1.5916531890630723 | 6.979996596710591 | 0.5437020010362237 | 1.8922447750840006 |
| 57 | 29000.0 | 1.5819304883480072 | 7.083438100694101 | 0.5425496775720079 | 1.9118223733539823 |
| 58 | 29500.0 | 1.6015023678541183 | 7.2309018147142625 | 0.5547363212553121 | 1.9206902528110938 |
| 59 | 30000.0 | 1.6589007318019866 | 7.343498417093784 | 0.577736604264227 | 1.9576066536239431 |
| 60 | 30500.0 | 1.5331724494695664 | 7.322276628470119 | 0.480146031005907861 | 1.9253324240068845 |
| 61 | 31000.0 | 1.5124441415071488 | 7.28997089893003 | 0.462648499315067851 | 1.9298699762247786 |
| 62 | 31500.0 | 1.5000203996896744 | 7.316984762119342 | 0.450281308616622 | 1.9176993656762038 |
| 63 | 32000.0 | 1.5002543687820435 | 7.326381224620191 | 0.4454437373048168 | 1.9520442033115821 |
| 64 | 32500.0 | 1.4937159061431884 | 7.385049005097981 | 0.4393273950633356 | 1.9458918805363812 |
| 65 | 33000.0 | 1.5088836997747421 | 7.4836250256888475 | 0.444639606622316051 | 1.9699364221548732 |
| 66 | 33500.0 | 1.5117683976888656 | 7.434847783438767 | 0.441382533665430731 | 1.979726999620848 |
| 67 | 34000.0 | 1.5086555242538453 | 7.451605519161949 | 0.4340351226471238 | 1.9908652954463717 |
| 68 | 34500.0 | 1.5147652953863144 | 7.493281648128847 | 0.435934232832011552 | 1.0043160658848436 |
| 69 | 35000.0 | 1.5037539303302765 | 7.479344482663311 | 0.4370819248132787 | 1.997183404391325 |
| 70 | 35500.0 | 1.5114232420921325 | 7.523868705652937 | 0.432010513619851272 | 1.030215370504162 |
| 71 | 36000.0 | 1.5132786482572556 | 7.551969691167904 | 0.432328786511542442 | 1.0141034941130047 |
| 72 | 36500.0 | 1.5251925140619278 | 7.579815085930161 | 0.435726604724334442 | 1.0470888509026057 |
| 73 | 37000.0 | 1.5148912370204926 | 7.589598118504392 | 0.4354851483288458 | 1.20327532246143005 |
| 74 | 37500.0 | 1.5194077432155608 | 7.584735791894454 | 0.4271633453288321 | 1.20555614263196533 |
| 75 | 38000.0 | 1.5159557580947876 | 7.646818668027468 | 0.4326689095567849 | 1.2074163537991198 |
| 76 | 38500.0 | 1.5219176650047301 | 7.6440605875812 | 0.425979061020632932 | 1.059915646722045 |
| 77 | 39000.0 | 1.5265952408313752 | 7.7372596414783334 | 0.4268815022403911 | 1.2092120881322064 |

normalised_entropy

| | epoch | clean_test | noisy_subset | clean_subset | cleaned_noisy_subset |
|---|--------|--------------------|--------------------|--------------------|----------------------|
| 0 | 500.0 | 0.8948748815536499 | 0.9177021968841552 | 0.9164915631612142 | 0.9175704873085022 |
| 1 | 1000.0 | 0.8938164102554321 | 0.9073793707847595 | 0.9060990732828776 | 0.9070739672660828 |

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|----|---------|--------------------|--------------------|--------------------|--------------------|
| 2 | 1500.0 | 0.86162770986557 | 0.885721496963501 | 0.883448584874471 | 0.8855602472305298 |
| 3 | 2000.0 | 0.8635468851089477 | 0.889578932762146 | 0.8869980911254883 | 0.889403761100769 |
| 4 | 2500.0 | 0.8405087995529175 | 0.8693966940879821 | 0.8648675060272217 | 0.869605770778656 |
| 5 | 3000.0 | 0.8156227627754211 | 0.8552998067855835 | 0.8489146216074626 | 0.8546848484039307 |
| 6 | 3500.0 | 0.8256309338569641 | 0.859972456741333 | 0.853486186726888 | 0.8601647372245789 |
| 7 | 4000.0 | 0.7859314761161804 | 0.8333173892974853 | 0.8242610654195149 | 0.8336306153297425 |
| 8 | 4500.0 | 0.776248549747467 | 0.8256615442276001 | 0.8140049413045247 | 0.8261374115943909 |
| 9 | 5000.0 | 0.7549772537231445 | 0.8061578127861023 | 0.7918913154602051 | 0.8060062971115113 |
| 10 | 5500.0 | 0.7491531608581543 | 0.8013790392875672 | 0.7863680926005046 | 0.8015654309272766 |
| 11 | 6000.0 | 0.7656244503974915 | 0.8053352088928223 | 0.7859263682047526 | 0.8043166828155518 |
| 12 | 6500.0 | 0.7412862674713134 | 0.7897121728897095 | 0.7682908604939779 | 0.7901322980880737 |
| 13 | 7000.0 | 0.7182958916664124 | 0.7757297735214234 | 0.7513549158732097 | 0.7757906671524047 |
| 14 | 7500.0 | 0.707836438369751 | 0.7649943264961243 | 0.7394163335164388 | 0.7638762857437134 |
| 15 | 8000.0 | 0.7228038368225098 | 0.7721821432113647 | 0.7482255522410075 | 0.7718099491119385 |
| 16 | 8500.0 | 0.7156927604675293 | 0.7751827005386352 | 0.7455403939565023 | 0.7735593276023864 |
| 17 | 9000.0 | 0.7248290998458863 | 0.7702175562858582 | 0.7402657262166341 | 0.7710526973724365 |
| 18 | 9500.0 | 0.722740564250946 | 0.7669954866409302 | 0.7353247319539388 | 0.7671513949394226 |
| 19 | 10000.0 | 0.6989856366157532 | 0.7579063907623291 | 0.7227308144887289 | 0.7582628810882568 |
| 20 | 10500.0 | 0.6690029110908509 | 0.7332780957221985 | 0.6967430249532064 | 0.7343420557022095 |
| 21 | 11000.0 | 0.7130419021606446 | 0.7689608102798462 | 0.7344824361165364 | 0.7701228294372559 |
| 22 | 11500.0 | 0.6785712171554565 | 0.7345700075149536 | 0.693723457590739 | 0.734534383392334 |
| 23 | 12000.0 | 0.6674695402145385 | 0.7233516231536865 | 0.6831155370712281 | 0.723651607131958 |
| 24 | 12500.0 | 0.6718037307739257 | 0.7273242576599122 | 0.684695851389567 | 0.728166480922699 |
| 25 | 13000.0 | 0.6509906675338745 | 0.7075603261947632 | 0.653304497273763 | 0.7064784189224244 |
| 26 | 13500.0 | 0.6635061979293824 | 0.7278411432266235 | 0.6835479111989339 | 0.7280933435440063 |
| 27 | 14000.0 | 0.6733872230529785 | 0.7363007037162781 | 0.6878618705749512 | 0.7393448003768921 |
| 28 | 14500.0 | 0.6292193956375122 | 0.7052060803413391 | 0.6585599095026652 | 0.7071033735275268 |
| 29 | 15000.0 | 0.6364124223709107 | 0.7068355900764466 | 0.6529220291773479 | 0.7060335847854614 |
| 30 | 15500.0 | 0.6640402105331421 | 0.7197326530456543 | 0.6672451869328817 | 0.7194003756523132 |
| 31 | 16000.0 | 0.6324053554534912 | 0.6989403150558472 | 0.6469026587804159 | 0.6998442054748535 |
| 32 | 16500.0 | 0.579395336151123 | 0.6605268779754638 | 0.5948012084960937 | 0.6614876443862915 |
| 33 | 17000.0 | 0.5886615392684936 | 0.65365866355896 | 0.5906971508026123 | 0.6549399483680725 |
| 34 | 17500.0 | 0.5826214374542237 | 0.6430596117973327 | 0.5783919096628825 | 0.643594645690918 |
| 35 | 18000.0 | 0.550202551107052 | 0.6072508012877860 | 0.540752874206542 | 0.6082262775802612 |

| | | | | | |
|----|---------|----------------------|----------------------|----------------------|---------------------|
| 35 | 18000.0 | 0.550203551197052 | 0.6073598013877889 | 0.540735874206545 | 0.60862382775802812 |
| 36 | 18500.0 | 0.586612295627594 | 0.6489412607192994 | 0.5854297697703044 | 0.6470626625061036 |
| 37 | 19000.0 | 0.5383475999832154 | 0.5990450047492981 | 0.5225183556874593 | 0.5992552362442016 |
| 38 | 19500.0 | 0.5326380697250366 | 0.5859826195716857 | 0.5157340747833252 | 0.5847676770210266 |
| 39 | 20000.0 | 0.4954440516471863 | 0.557752689743042 | 0.4834701732635498 | 0.5578859727859498 |
| 40 | 20500.0 | 0.4365660005569458 | 0.4945451099395752 | 0.367260111872355130 | 0.49483074712753294 |
| 41 | 21000.0 | 0.415027348470687840 | 0.4730137529373169 | 0.3254289000829061 | 0.4732925611019135 |
| 42 | 21500.0 | 0.408563863468170140 | 0.4702152443408966 | 0.304234167385101340 | 0.4719662076950073 |
| 43 | 22000.0 | 0.3839335265159607 | 0.4474177264213562 | 0.274704939524332670 | 0.44803553619384767 |
| 44 | 22500.0 | 0.368828461456298830 | 0.431832645130157460 | 0.2536218769073486 | 0.4322914206504822 |
| 45 | 23000.0 | 0.359727820444107060 | 0.4236294713020325 | 0.234096817334493 | 0.42608258090019224 |
| 46 | 23500.0 | 0.3453399362564087 | 0.4043366737365723 | 0.214666305700937920 | 0.40465489892959594 |
| 47 | 24000.0 | 0.323308266162872340 | 0.3802009970188141 | 0.197192657311757420 | 0.3799321802139282 |
| 48 | 24500.0 | 0.3118588180065155 | 0.360274482917785630 | 0.178094192600250250 | 0.363032141494751 |
| 49 | 25000.0 | 0.297100808429718030 | 0.3387886796474457 | 0.163313252735137940 | 0.34146901178359984 |
| 50 | 25500.0 | 0.2840646492958069 | 0.320979532623291040 | 0.152043367322285960 | 0.32139257516860964 |
| 51 | 26000.0 | 0.273556365442276 | 0.3034042514801025 | 0.140284176476796470 | 0.30247002992630007 |
| 52 | 26500.0 | 0.2678935758590698 | 0.2880200120449066 | 0.131599112033844 | 0.28717164640426635 |
| 53 | 27000.0 | 0.2549250853061676 | 0.2698771132469177 | 0.122768243471781420 | 0.26823182711601257 |
| 54 | 27500.0 | 0.2508647382259369 | 0.2565122024059296 | 0.115989746189117430 | 0.2556755753517151 |
| 55 | 28000.0 | 0.237972893452644360 | 0.2404717871427536 | 0.109219063011805210 | 0.2406947172164917 |
| 56 | 28500.0 | 0.231820777964591970 | 0.2310407618522644 | 0.108892068115870160 | 0.22964997062683107 |
| 57 | 29000.0 | 0.2262115458726883 | 0.219834052872657780 | 0.104427812989552810 | 0.22259004077911376 |
| 58 | 29500.0 | 0.225358565855026250 | 0.2121427721261978 | 0.097498630801836660 | 0.21339079492092133 |
| 59 | 30000.0 | 0.215548447799682630 | 0.1994023654460907 | 0.096407048702239980 | 0.19872759199142456 |
| 60 | 30500.0 | 0.210508061122894270 | 0.183744724440574660 | 0.074901093339920040 | 0.18584794244766234 |
| 61 | 31000.0 | 0.2151670033454895 | 0.179647256135940540 | 0.0720818884531657 | 0.1806981628894806 |
| 62 | 31500.0 | 0.213493744444847120 | 0.174684720039367660 | 0.067402632411321010 | 0.17696527466773987 |
| 63 | 32000.0 | 0.2133565363407135 | 0.170648874473571770 | 0.065216519947846730 | 0.16928460192680359 |
| 64 | 32500.0 | 0.2099030246257782 | 0.164309483623504640 | 0.063887046535809830 | 0.1665706292629242 |
| 65 | 33000.0 | 0.205095060276985180 | 0.157136014294624320 | 0.059645343291759490 | 0.15768291306495666 |
| 66 | 33500.0 | 0.208690657830238350 | 0.159212517118453970 | 0.059155440318584440 | 0.15872382242679595 |
| 67 | 34000.0 | 0.2099061309814453 | 0.1575593046426773 | 0.0591419172445933 | 0.15451450488567353 |
| 68 | 34500.0 | 0.208650516700744640 | 0.154219391918182370 | 0.057389639135201770 | 0.15278769841194154 |

| | | |
|----|---------|--|
| 69 | 35000.0 | 0.209229961419105520.152411583971977240.057315396849314370.15334649963378907 |
| 70 | 35500.0 | 0.2087233559846878 0.151301532077789320.0560400804678599 0.15102247481346132 |
| 71 | 36000.0 | 0.209490489244461060.1461795227050781 0.055501622656981150.14880463621616363 |
| 72 | 36500.0 | 0.206118180274963370.1434199537038803 0.054663929947217306.14299331438541413 |
| 73 | 37000.0 | 0.206077400279045110.143730008602142330.054434725324312840.14305981483459473 |
| 74 | 37500.0 | 0.2097054550886154 0.1420411632537842 0.053239502318700160.1429695348262787 |
| 75 | 38000.0 | 0.206915819311141970.135341410946846 0.051784503249327340.13717986130714416 |
| 76 | 38500.0 | 0.206948121213912960.136826198363304150.051309491548935570.135737029671669 |
| 77 | 39000.0 | 0.203317406058311470.130495536160469050.049931849038600920.13144502391815185 |

max_p

| | epoch | clean_test | noisy_subset | clean_subset | cleaned_noisy_subset |
|----|---------|--|--|--------------|----------------------|
| 0 | 500.0 | 0.089692961072921750.072431468176841730.0733905509630839 | 0.0724988935828209 | | |
| 1 | 1000.0 | 0.092413693845272070.083605770564079280.084845729192097990.08370480061769485 | | | |
| 2 | 1500.0 | 0.1209072086572647 0.102387966132164 | 0.104519763008753460.1025848459482193 | | |
| 3 | 2000.0 | 0.125826261615753170.104771654689311970.107383574787775670.10491343636512757 | | | |
| 4 | 2500.0 | 0.148877681159973160.123451098239421840.127933485476175950.1233846796989441 | | | |
| 5 | 3000.0 | 0.169080985426902780.135627505970001230.142381518793106070.1362461838722229 | | | |
| 6 | 3500.0 | 0.160275804376602160.1316542006134987 | 0.138261452643076570.13163883216381073 | | |
| 7 | 4000.0 | 0.205554719305038460.165420141792297360.174790416463216140.16533416731357575 | | | |
| 8 | 4500.0 | 0.211575013923645030.167651982164382930.179497302818298340.16748208377361298 | | | |
| 9 | 5000.0 | 0.234127563953399650.190064251780509950.2048651105562846 | 0.19062167518138887 | | |
| 10 | 5500.0 | 0.2439326473712921 0.197118501091003430.212117510445912680.19712332711219788 | | | |
| 11 | 6000.0 | 0.237766314125061020.201128479981422410.221326741917928060.20186708455085756 | | | |
| 12 | 6500.0 | 0.267844125652313250.2219084233045578 | 0.243735821628570550.2214363810300827 | | |
| 13 | 7000.0 | 0.285826970481872560.230321114969253530.255216013526916530.23023390266895294 | | | |
| 14 | 7500.0 | 0.291972810840606670.239275848293304450.265639475917816170.24060626645088196 | | | |
| 15 | 8000.0 | 0.288017104196548470.2405729965686798 | 0.2648942523320516 0.24096192741394043 | | |
| 16 | 8500.0 | 0.298324143362045270.241244396233558640.271697816562652570.2427514480829239 | | | |
| 17 | 9000.0 | 0.2904137357711792 0.246405735421180720.277038710657755540.2455232760667801 | | | |
| 18 | 9500.0 | 0.294227249813079850.250265262269973750.282804178174336730.25018941698074343 | | | |
| 19 | 10000.0 | 0.3167328033924103 0.258808408260345460.2949437375386556 | 0.2583982489109039 | | |
| 20 | 10500.0 | 0.347499241542816140.2848592019081116 | 0.3223347667058309 0.28368656535148623 | | |

| | | |
|----|---------|--|
| 21 | 11000.0 | 0.310104226350784330.2551029187440872 0.290850896326700860.2538387118577957 |
| 22 | 11500.0 | 0.3376293022155762 0.2836783459186554 0.3248680309931437 0.28318721933364865 |
| 23 | 12000.0 | 0.348511284685134870.2917822262763977 0.331921261088053370.29188696455955504 |
| 24 | 12500.0 | 0.3442855381965637 0.287764014196395860.331750560887654640.2876281356334686 |
| 25 | 13000.0 | 0.3640642275810242 0.307906714534759540.3631763582865397 0.3088793604850769 |
| 26 | 13500.0 | 0.358685664463043230.295548830986022970.341425293223063140.29552270879745485 |
| 27 | 14000.0 | 0.3502806948661804 0.2888385848045349 0.338022767639160170.28485286459922793 |
| 28 | 14500.0 | 0.395856408977508570.321774865818023670.3678130536397298 0.31951662826538085 |
| 29 | 15000.0 | 0.3876424559116364 0.318618467807769760.372853076934814450.31890150594711303 |
| 30 | 15500.0 | 0.3688112359046936 0.311596184349060060.365579816691080750.31199712653160094 |
| 31 | 16000.0 | 0.3927241809844971 0.326193022441864 0.3793381799697876 0.32539060645103457 |
| 32 | 16500.0 | 0.444271675252914440.3658586734771728 0.4312534862518311 0.3646093729972839 |
| 33 | 17000.0 | 0.427287651443481460.363052954196929960.426411218325297050.36196165981292727 |
| 34 | 17500.0 | 0.4431071971416473 0.381775511932373 0.446190667915344230.3812431351661682 |
| 35 | 18000.0 | 0.4700372100830078 0.4144256049633026 0.4794187110900879 0.4136047439575195 |
| 36 | 18500.0 | 0.4428520213127136 0.3814881793498993 0.444038816388448050.3830896126270294 |
| 37 | 19000.0 | 0.483750863075256330.424487986946105960.499437246704101560.42397081451416013 |
| 38 | 19500.0 | 0.489816626358032250.4382674889564514 0.5070152153015137 0.43976269731521606 |
| 39 | 20000.0 | 0.5257869638442993 0.4647763418197632 0.5372943342844645 0.46500932426452635 |
| 40 | 20500.0 | 0.5937640197753906 0.5380536312103271 0.6596213158925375 0.537698079586029 |
| 41 | 21000.0 | 0.615434603023529 0.5605742017745972 0.6995149894714355 0.5602466674804687 |
| 42 | 21500.0 | 0.6231398302078247 0.566118091583252 0.7221850312550863 0.5638621915817261 |
| 43 | 22000.0 | 0.6446267942428588 0.58639787940979 0.7487325678507487 0.5860390180587769 |
| 44 | 22500.0 | 0.6570904337882996 0.6009667099952698 0.7678018011728922 0.600406847000122 |
| 45 | 23000.0 | 0.6657797025680542 0.609491415977478 0.7864179801940918 0.607541067123413 |
| 46 | 23500.0 | 0.6791031372070313 0.6280966203689575 0.8048735268910726 0.627632992553711 |
| 47 | 24000.0 | 0.6966504778861999 0.6488898565292358 0.8186843907674154 0.6484531867027282 |
| 48 | 24500.0 | 0.7085597414970398 0.6670148899078369 0.8360769426981608 0.6641505643844604 |
| 49 | 25000.0 | 0.720239431476593 0.6872520916938781 0.8494435311635335 0.6847648303031921 |
| 50 | 25500.0 | 0.7323952152252198 0.7032418935775757 0.8593581591288249 0.7021075679779053 |
| 51 | 26000.0 | 0.7416675107955932 0.7184047323226929 0.8699922668457031 0.720191623878479 |
| 52 | 26500.0 | 0.7461761489868164 0.7322097262382508 0.8770095862070719 0.7336344919204711 |
| 53 | 27000.0 | 0.7577422883033752 0.7487803112030029 0.8844265897115071 0.7503977105140686 |

| | | | | | |
|----|---------|--------------------|--------------------|--------------------|--------------------|
| 54 | 27500.0 | 0.7625961838722229 | 0.7607264150619507 | 0.8914117725372315 | 0.7613869701385498 |
| 55 | 28000.0 | 0.771605601978302 | 0.7727726970672607 | 0.8955533392588297 | 0.7731300687789917 |
| 56 | 28500.0 | 0.7759114923477173 | 0.7820155828475952 | 0.8958767634073893 | 0.7831602169036865 |
| 57 | 29000.0 | 0.7813028818130493 | 0.7936636276245117 | 0.9000014802296956 | 0.7902537232398987 |
| 58 | 29500.0 | 0.783047077178955 | 0.799655575466156 | 0.9065701377868652 | 0.7972182824134827 |
| 59 | 30000.0 | 0.7924921914100647 | 0.810702773475647 | 0.9071416803995769 | 0.812101149559021 |
| 60 | 30500.0 | 0.7975979237556458 | 0.8282109818458557 | 0.9293507901509603 | 0.8256835750579834 |
| 61 | 31000.0 | 0.7948073293685913 | 0.833764290046692 | 0.9329158874511718 | 0.8324573733329773 |
| 62 | 31500.0 | 0.7970010191917419 | 0.8379162544250488 | 0.9376305458068848 | 0.835533996295929 |
| 63 | 32000.0 | 0.7961887868881226 | 0.8419318515777587 | 0.9398426874796549 | 0.8425921339035034 |
| 64 | 32500.0 | 0.8003411556243897 | 0.8485744151115417 | 0.9408048197428386 | 0.8462629712104798 |
| 65 | 33000.0 | 0.8040856384277344 | 0.8532348817825317 | 0.944147474416097 | 0.8533383548736573 |
| 66 | 33500.0 | 0.8013376238822937 | 0.8525179622650146 | 0.9454277798970541 | 0.8537828560829163 |
| 67 | 34000.0 | 0.7999188829421997 | 0.8543426344871521 | 0.9450773972829183 | 0.8571904685020447 |
| 68 | 34500.0 | 0.8008833106994628 | 0.8582046505928039 | 0.9468869097391764 | 0.8590990636825562 |
| 69 | 35000.0 | 0.8006866088867187 | 0.8596435918807983 | 0.947429970296224 | 0.8590351774215699 |
| 70 | 35500.0 | 0.8014122480392456 | 0.8608544075965882 | 0.9484914850870768 | 0.8606247591018676 |
| 71 | 36000.0 | 0.8013036023139953 | 0.865286967086792 | 0.949051744333903 | 0.8632927467346191 |
| 72 | 36500.0 | 0.8044156175613403 | 0.8683189014434815 | 0.9494215220133464 | 0.8684309677124024 |
| 73 | 37000.0 | 0.8043711740493774 | 0.8681769798278809 | 0.9500072189331055 | 0.8685837405204773 |
| 74 | 37500.0 | 0.8012025168418885 | 0.8702304229736328 | 0.9516031679789225 | 0.8690440422058106 |
| 75 | 38000.0 | 0.8033859205245971 | 0.8764238151550293 | 0.9528104555765787 | 0.874167254447937 |
| 76 | 38500.0 | 0.804636992073059 | 0.874829876613617 | 0.953028033955892 | 0.8756704587936401 |
| 77 | 39000.0 | 0.8067124141693115 | 0.8804633457183838 | 0.9542142262776693 | 0.8792980855941772 |

metadata

| | epoch | lr_change_ratio | batch_mean_epsilon | batch_valid_ratio | batch_mean_epsilon |
|---|--------|-----------------|-----------------------|-----------------------|---------------------|
| 0 | 500.0 | 1.0 | 0.0006383356521837413 | 0.0028826633933931251 | 0.0043594038619995 |
| 1 | 1000.0 | 1.0 | 0.000847373332362622 | 0.0033604728523601252 | 0.00589398384094 |
| 2 | 1500.0 | 1.0 | 0.001122169429436326 | 0.0039171669632192454 | 0.00747473454475403 |
| 3 | 2000.0 | 1.0 | 0.001399407396093011 | 0.0045656627044083055 | 0.009069317817688 |
| 4 | 2500.0 | 1.0 | 0.002053166041150689 | 0.0053209452889859385 | 0.01086488366127014 |
| 5 | 3000.0 | 1.0 | 0.002401414792984724 | 0.0062003899365663387 | 0.0130061054229736 |

| | | | | |
|----|---------|--------------------|-----------------------|-------------------------------------|
| 6 | 3500.0 | 1.0 | 0.002666603773832321 | 0.0072241369634863594242039203644 |
| 7 | 4000.0 | 1.0 | 0.0038743659388273954 | 0.008415483869610216038541197776794 |
| 8 | 4500.0 | 1.0 | 0.004240425303578377 | 0.0098013589158664326364994049072 |
| 9 | 5000.0 | 1.0 | 0.0056204600259661674 | 0.01141283381730031924684166908264 |
| 10 | 5500.0 | 1.0 | 0.006869700271636248 | 0.01328569557517057170749425888062 |
| 11 | 6000.0 | 1.0 | 0.007412472274151425 | 0.0154611002653837794272184371948 |
| 12 | 6500.0 | 1.0 | 0.008947675116360188 | 0.01798621006309989747419357299805 |
| 13 | 7000.0 | 1.0 | 0.011479776352643967 | 0.02091495506465035488787889480591 |
| 14 | 7500.0 | 1.0 | 0.013851108029481749 | 0.02430879510939035627982311248779 |
| 15 | 8000.0 | 1.0 | 0.01590847037732601 | 0.02823746763169765533816123008728 |
| 16 | 8500.0 | 1.0 | 0.02053912729024887 | 0.032779745757579826579761505127 |
| 17 | 9000.0 | 1.0 | 0.022499684244394302 | 0.038024093955756234721773147583 |
| 18 | 9500.0 | 1.0 | 0.028575671836733818 | 0.04406924173235893484266519546509 |
| 19 | 10000.0 | 1.0 | 0.032727696001529694 | 0.0510245077311992654112448692322 |
| 20 | 10500.0 | 1.0 | 0.03637175261974335 | 0.0590097047388563863690090179443 |
| 21 | 11000.0 | 1.0 | 0.04269992560148239 | 0.0681548342108706265134811401367 |
| 22 | 11500.0 | 1.0 | 0.051675453782081604 | 0.0785988420248036574581861495972 |
| 23 | 12000.0 | 1.0 | 0.05840662121772766 | 0.09048788994550705454633474349976 |
| 24 | 12500.0 | 1.0 | 0.061109595000743866 | 0.10397234559059045877485275268555 |
| 25 | 13000.0 | 1.0 | 0.0784408450126648 | 0.11920291930437085580446362495422 |
| 26 | 13500.0 | 1.0 | 0.09115536510944366 | 0.13632510602474016886615943908691 |
| 27 | 14000.0 | 1.0 | 0.10946248471736908 | 0.15547259151935677040629386901855 |
| 28 | 14500.0 | 1.0 | 0.11735095083713531 | 0.1767590194940567639036536216736 |
| 29 | 15000.0 | 1.0 | 0.13813158869743347 | 0.20026876032352046897310018539429 |
| 30 | 15500.0 | 1.0 | 0.14812442660331726 | 0.2260468155145605552821397781372 |
| 31 | 16000.0 | 1.0 | 0.1741730421781540 | 0.2540887296199798854811906814575 |
| 32 | 16500.0 | 1.0 | 0.2096545696258545 | 0.2843313515186307373600006103516 |
| 33 | 17000.0 | 1.0 | 0.2306853085756302 | 0.3166455328464507285284996032715 |
| 34 | 17500.0 | 1.0 | 0.25271686911582947 | 0.35083189606666667203360199928284 |
| 35 | 18000.0 | 1.0 | 0.29301756620407104 | 0.3866209089756002578936815261841 |
| 36 | 18500.0 | 1.0 | 0.3341847062110900 | 0.423678100109100738770318031311 |
| 37 | 19000.0 | 1.0 | 0.3541492521762848 | 0.46161413192749027571976089477539 |
| 38 | 19500.0 | 1.0 | 0.38773125410079956 | 0.507754625082015991 |
| 39 | 20000.0 | 0.1000000000000000 | 0.522324085235596 | 0.538385808467866771237313747406 |

[illegible]

[illegible]