

Model Performance and Compute Summary (Top & Bottom Models)

| Model | F1 | Acc | Prec | Recall | Exec (s) | Spec (s) | Dras (s) | Mean (s) | Prompts | Eval Count |
|-------------------------------|--------|---------|--------|--------|----------|----------|---------------|----------|---------|------------|
| Llama3.1 (8b) (system1) | 0.5870 | 62.0000 | 0.4576 | 0.8182 | 0.2795 | 0.723016 | 2510000.0000 | 248.68 | 17.00 | |
| Falcon3 (7b) (system1) | 0.5682 | 62.0000 | 0.4630 | 0.7353 | 0.3150 | 0.526522 | 1770000.0000 | 267.51 | 26.00 | |
| Gemma2 (9b) (cot_nshot) | 0.5625 | 58.0000 | 0.4355 | 0.7941 | 4.0741 | 0.516945 | 7570000.0000 | 2048.00 | 276.35 | |
| Athene-v2 (72b) (cot_nshot) | 0.5517 | 63.8889 | 0.4706 | 0.6667 | 58.5299 | 7.509540 | 82708333.3333 | 2048.00 | 362.76 | |
| Olmo2 (7b) (system1) | 0.5479 | 67.0000 | 0.4000 | 0.8696 | 0.1993 | 0.368812 | 4340000.0000 | 249.70 | 13.00 | |
| Athene-v2 (72b) (cot) | 0.5455 | 60.0000 | 0.4138 | 0.8000 | 62.1297 | 6.611614 | 64570000.0000 | 330.60 | 425.93 | |
| Qwen2.5 (72b) (cot_nshot) | 0.5432 | 63.0000 | 0.5000 | 0.5946 | 57.9709 | 6.486535 | 33320000.0000 | 2048.00 | 359.62 | |
| Marco-o1 (7b) (cot_nshot) | 0.5361 | 55.0000 | 0.3714 | 0.9630 | 2.8180 | 0.371538 | 3310000.0000 | 2048.00 | 271.72 | |
| Athene-v2 (72b) (system1) | 0.5333 | 65.0000 | 0.4082 | 0.7692 | 3.4656 | 4.634248 | 0600000.0000 | 251.95 | 18.00 | |
| Llama3.3 (70b) (cot_nshot) | 0.5278 | 66.0000 | 0.4318 | 0.6786 | 26.4581 | 3.319229 | 81990000.0000 | 2048.00 | 380.90 | |
| Olmo2 (7b) (cot) | 0.5191 | 37.0000 | 0.3505 | 1.0000 | 2.8126 | 0.678277 | 70260000.0000 | 326.85 | 329.81 | |
| ExaOne3.5 (7.8b) (cot_nshot) | 0.5185 | 48.0000 | 0.3836 | 0.8000 | 2.9127 | 0.318243 | 7790000.0000 | 2048.00 | 277.16 | |
| Llama3.2 (3b) (system1) | 0.5161 | 70.0000 | 0.5000 | 0.5333 | 0.1850 | 0.408810 | 0950000.0000 | 258.39 | 17.00 | |
| Qwen2.5 (3b) (system1) | 0.5143 | 66.0000 | 0.4390 | 0.6207 | 0.2026 | 0.333711 | 4160000.0000 | 251.92 | 18.00 | |
| Command-R (35b) (cot) | 0.5128 | 43.0000 | 0.3529 | 0.9375 | 9.9704 | 1.815984 | 9100000.0000 | 331.94 | 352.51 | |
| Phi4 (14b) (cot_nshot) | 0.3571 | 46.0000 | 0.2344 | 0.7500 | 8.1288 | 1.847030 | 1570000.0000 | 2048.00 | 494.78 | |
| Qwen2.5 (0.5b) (cot) | 0.3500 | 48.0000 | 0.2800 | 0.4667 | 0.5781 | 0.297952 | 9590000.0000 | 330.70 | 178.25 | |
| Llama3.2 (1b) (cot) | 0.3419 | 23.0000 | 0.2062 | 1.0000 | 0.6680 | 0.344963 | 1880000.0000 | 336.98 | 232.58 | |
| Qwen2.5 (3b) (cot_nshot) | 0.3243 | 50.0000 | 0.2553 | 0.4444 | 1.8726 | 0.361256 | 2560000.0000 | 2048.00 | 258.62 | |
| Llama3.2 (1b) (system1) | 0.3038 | 45.0000 | 0.2182 | 0.5000 | 0.1211 | 0.211460 | 800000.0000 | 257.44 | 18.44 | |
| Nemotron Mini (4b) (system1) | 0.2963 | 62.0000 | 0.2857 | 0.3077 | 0.2401 | 0.405013 | 9400000.0000 | 261.84 | 19.90 | |
| Mistral (7b) (cot) | 0.2941 | 52.0000 | 0.2381 | 0.3846 | 2.9245 | 1.099688 | 7590000.0000 | 363.84 | 366.01 | |
| Qwen2.5 (7b) (system1) | 0.2745 | 63.0000 | 0.3333 | 0.2333 | 0.2787 | 0.633416 | 4870000.0000 | 252.04 | 18.00 | |
| Tulu3 (8b) (system1) | 0.2647 | 50.0000 | 0.2000 | 0.3913 | 0.2498 | 0.749213 | 0290000.0000 | 249.70 | 13.00 | |
| Marco-o1 (7b) (system1) | 0.2553 | 65.0000 | 0.3000 | 0.2222 | 0.2849 | 0.716416 | 5200000.0000 | 250.05 | 18.00 | |
| Qwen2.5 (1.5b) (cot) | 0.2500 | 64.0000 | 0.3529 | 0.1935 | 1.4244 | 0.442037 | 4350000.0000 | 330.73 | 347.66 | |
| Qwen2.5 (0.5b) (system1) | 0.2000 | 52.0000 | 0.2069 | 0.1935 | 0.1385 | 0.197467 | 360000.0000 | 252.61 | 18.41 | |
| Qwen2.5 (14b) (system1) | 0.1702 | 61.0000 | 0.1538 | 0.1905 | 0.4627 | 1.021928 | 3130000.0000 | 251.46 | 18.00 | |
| Mistral (7b) (cot_nshot) | 0.0984 | 45.0000 | 0.0857 | 0.1154 | 2.4661 | 0.711920 | 26680000.0000 | 2048.00 | 236.91 | |
| Smallthinker (3b) (cot_nshot) | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 5.3261 | 0.000048 | 38000000.0000 | 2048.00 | 708.00 | |