

A. Tasks overview

This appendix provides detailed information on all tasks within MIEB, including size, language, metrics, and other relevant details. Note that we present the categories based on Abtask implementations here. We recommend refer to [Table 1](#) for the taxonomy based on capabilities assessed.

[Table 6](#) shows all information related to retrieval tasks. [Table 7](#) presents data related to clustering, standard image classification, zero-shot classification, and multi-label image classification tasks. Lastly, [Table 8](#) covers information for visual STS, text-based multiple choice, and image-text pair classification tasks.

For all the paper citation hyperlinks in this Appendix, we refer to the main paper for corresponding citation list.

B. Per Task Category Results

B.1. Clustering

[Table 9](#) presents clustering results of clustering tasks.

B.2. Vision-centric QA

[Table 10](#) presents results of all Vision-centric QA tasks.

B.3. Multilingual Retrieval

[Table 11](#) presents all multilingual retrieval task results, which include 54 subtask results from the 3 multilingual retrieval tasks.

B.4. Visual STS

[Table 12](#) presents English-only STS results across 7 STS tasks. [Table 13](#) presents cross-lingual STS results across 11 language pairs. [Table 14](#) presents multilingual STS results across 10 languages.

B.5. Document Understanding

[Table 15](#) presents document understanding results.

B.6. Linear Probe

[Table 16](#) and [Table 17](#) respectively present linear probing results for coarse-grained and fine-grained classification tasks.

B.7. Zeroshot Classification

[Table 18](#) and [Table 19](#) respectively present zero-shot classification results for coarse-grained and fine-grained classification tasks.

B.8. Compositionality

[Table 20](#) presents results of compositionality tasks.

B.9. Retrieval

[Table 21](#) presents results of retrieval tasks.

C. Overall Results & First MIEB Leaderboard

Based on the per-task category results, we provide an overall ranking in [Table 22](#), aggregating all results. Note that we currently exclude all models that are not able to evaluate on all tasks in the overall table, including vision-only models like Dino-2 and Moco-v3 that are not able to test on image-text tasks, yielding 36 models in **the first MIEB leaderboard**. Note that for models that are not in the overall table, we refer readers to per task category tables for details.

D. Models

All models used in evaluations are listed in [Table 23](#).

Type (# tasks)	Task	MIEB-lite	# Queries	# Documents	# Qrels	Avg. # Choices	Supported Languages	Queries per Language (multi)	Metric
Any2AnyRetrieval	BLINKIT2IRetrieval [30]		285	570	285	-	en	-	Recall@1
	BLINKIT2IRetrieval [30]		1073	26	1073	-	en	-	Recall@1
	CIRRI2IRetrieval [67]	✓	4170	21551	4216	-	en	-	NDCG@10
	CUB20012IRetrieval [99]	✓	5794	5794	163756	-	-	-	Recall@1
	EDIST2IRetrieval [65]		3241	1047067	8341	-	en	-	NDCG@10
	Fashion200k12IRetrieval [37]	✓	4889	61707	4889	-	en	-	NDCG@10
	Fashion200k2IRetrieval [37]		1719	201824	4847	-	en	-	NDCG@10
	FashionIQIT2IRetrieval [102]		6003	74381	6014	-	en	-	NDCG@10
	Flickr30k12IRetrieval [111]		31014	155070	155070	-	en	-	NDCG@10
	Flickr30k2IRetrieval [111]		31014	155070	155070	-	en	-	NDCG@10
	FORBI2IRetrieval [103]		13250	53984	13250	-	-	-	Recall@1
	GLDv212IRetrieval [100]		1129	761757	15138	-	-	-	NDCG@10
	GLDv212IRetrieval [100]		1972	674	1939	-	en	-	NDCG@10
	HatefulMemes12IRetrieval [50]	✓	829	8045	829	-	en	-	NDCG@10
	HatefulMemes2IRetrieval [50]		829	8045	829	-	en	-	NDCG@10
	InfoSeekIT2IRetrieval [14]		17593	481782	131376	-	en	-	NDCG@10
	InfoSeekIT2IRetrieval [14]	✓	11323	611651	73869	-	en	-	NDCG@10
	Memotion2IRetrieval [86]		700	6988	700	-	en	-	NDCG@10
	METI2IRetrieval [112]		87942	260655	172713	-	-	-	Recall@1
	MSCOCO12IRetrieval [61]		5000	24809	24989	-	en	-	NDCG@10
	MSCOCOT2IRetrieval [61]		24809	5000	24989	-	en	-	NDCG@10
	NIGHTS12IRetrieval [29]	✓	2120	40038	2120	-	en	-	NDCG@10
	OVENIT2IRetrieval [42]		14741	335135	261258	-	en	-	NDCG@10
	OVENIT2IRetrieval [42]	✓	50004	676667	492654	-	en	-	NDCG@10
	ROxfordEasy12IRetrieval [83]		70	4993	345657	-	-	-	map@5
	ROxfordMedium12IRetrieval [83]		70	4993	345657	-	-	-	map@5
	ROxfordHard12IRetrieval [83]		70	4993	345657	-	-	-	map@5
	RP2k12IRetrieval [82]	✓	39457	39457	4409419	-	-	-	Recall@1
	RParisEasy12IRetrieval [83]		70	6322	435387	-	-	-	map@5
	RParisMedium12IRetrieval [83]		70	6322	435387	-	-	-	map@5
	RParisHard12IRetrieval [83]		70	6322	435387	-	-	-	map@5
	SciMMIR12IRetrieval [104]		16263	16263	16263	-	en	-	NDCG@10
	SciMMIR2IRetrieval [104]		16263	16263	16263	-	en	-	NDCG@10
	Sketchy12IRetrieval [112]		452886	25000	90577200	-	en	-	Recall@1
	SOP12IRetrieval [79]		120053	120053	840927	-	-	-	Recall@1
	StanfordCars12IRetrieval [53]		8041	8041	325570	-	-	-	Recall@1
	TUBerlin12IRetrieval [23]		250	20000	20000	-	en	-	NDCG@10
	VidoreArxivQARetrieval [27]		500	500	500	-	en	-	NDCG@5
	VidoreDocVQARetrieval [27]	✓	500/451	500	500	-	en	-	NDCG@5
	VidoreInfoVQARetrieval [27]	✓	500/494	500	500	-	en	-	NDCG@5
	VidoreTabquadRetrieval [27]	✓	280	70	280	-	fr	-	NDCG@5
	VidoreTatdqaRetrieval [27]	✓	1646	277	1663	-	en	-	NDCG@5
	VidoreShiftProjectRetrieval [27]	✓	100	1000	1000	-	fr	-	NDCG@5
	VidoreSyntheticDocQAARetrieval [27]	✓	100	968	1000	-	en	-	NDCG@5
	VidoreSyntheticDocQAEnergyRetrieval [27]		100	977	1000	-	en	-	NDCG@5
	VidoreSyntheticDocQAGovernmentReportsRetrieval [27]		100	972	1000	-	en	-	NDCG@5
	VidoreSyntheticDocQAHealthcareIndustryRetrieval [27]		100	965	1000	-	en	-	NDCG@5
	VisualNews12IRetrieval [62]	✓	20000	537568	20000	-	en	-	NDCG@10
	VisualNews2IRetrieval [62]		19995	542246	20000	-	en	-	NDCG@10
	VizWiz12IRetrieval [36]		4319	2091	4319	-	en	-	NDCG@10
	VQA2IT2IRetrieval [34]	✓	214354	21597	214354	-	en	-	NDCG@10
	WebQAT2IRetrieval [10]	✓	2511	403196	3627	-	en	-	NDCG@10
	WebQAT2IRetrieval [10]		2455	544457	5002	-	en	-	NDCG@10
	WTTT2IRetrieval [8]	✓	9790	8553	8291	-	ar, bg, da, el, et, id, ko, ja, tr, vi, en	792, 806, 814, 541, 780, 854, 842, 889, 681, 869, 685	NDCG@10
	XFlickr30kCoT2IRetrieval [8]		16000	16000	16000	-	de, en, es, id, ja, ru, tr, zh	2000 each	NDCG@10
	XM3600T2IRetrieval [93]	✓	129600	259200	259200	-	ar, bn, cs, da, de, el, en, es, fa, fi, fil, fr, hi, hr, hu, id, it, he, ja, ko, mi, nl, no, pl, pt, quz, ro, ru, sv, sw, te, th, tr, uk, vi, zh	3600 each	NDCG@10

Table 6. Datasets overview and metadata for *Any2AnyRetrieval* task.

Type	Task	MIEB-lite	# Samples Train	# Samples Test	# Labels	Metric
ImageClassification	Birdsnap [5]		2674	1851	500	Accuracy
	Caltech101 [28]		3060	6084	101	
	CIFAR10 [54]		50000	10000	10	
	CIFAR100 [54]		50000	10000	100	
	Country211 [84]		28000	21100	211	
	DTD [17]	✓	3760	1880	47	
	EuroSAT [39]	✓	16200	5400	10	
	FER2013 [33]		28709	7178	7	
	FGVCAircraft [69]		-	3333	-	
	Food101Classification [6]		75750	25300	101	
	GTSRB [88]	✓	26640	12630	43	
	Imagenet1k [21]		45200	37200	744	
	MNIST [57]		60000	10000	10	
	OxfordFlowersClassification [77]		7169	1020	102	
	OxfordPets [81]	✓	3680	3669	37	
	PatchCamelyon [96]	✓	262144	32768	2	
	RESISC45 [15]	✓	18900	6300	45	
	StanfordCars [53]		8144	8041	196	
	STL10 [18]		5000	8000	10	
	SUN397 [107]	✓	76127	21750	397	
	UCF101 [87]		1786096	697222	101	
ImageMultiLabelClassification*	VOC2007 [26]		-	4952	$\in [1 - 5]$	Accuracy
ImageClustering	CIFAR10Clustering [54]		-	10000	10	NMI
	CIFAR100Clustering [54]		-	10000	100	
	ImageNetDog15Clustering [21]	✓	-	1076	15	
	ImageNet10Clustering [21]		-	13000	10	
	TinyImageNetClustering [56]	✓	-	10000	200	
ZeroShotClassification	BirdsnapZeroShot [5]		2674	1851	500	Accuracy
	Caltech101ZeroShot [28]		3060	6084	101	
	CIFAR10ZeroShot [54]		50000	10000	10	
	CIFAR100ZeroShot [54]	✓	50000	10000	100	
	CLEVRZeroShot [49]		51600	15000	6	
	CLEVRCountZeroShot [49]		51600	15000	8	
	Country211ZeroShot [84]	✓	28000	21100	211	
	DTDZeroShot [17]		3760	1880	47	
	EuroSATZeroShot [39]		16200	5400	10	
	FER2013ZeroShot [33]	✓	28709	7178	7	
	FGVCAircraftZeroShot [69]	✓	-	3333	-	
	Food101ZeroShot [6]	✓	75750	25300	101	
	GTSRBZeroShot [88]		26640	12630	43	
	Imagenet1kZeroShot [21]		45200	37200	744	
	MNISTZeroShot [57]		60000	10000	10	
	OxfordPetsZeroShot [81]	✓	3680	3669	37	
	PatchCamelyonZeroShot [96]		262144	32768	2	
	RenderedSST2 [84]		6920	1821	2	
	RESISC45ZeroShot [15]		18900	6300	45	
	SciMMIR [104]		498279	16263	5	
	StanfordCarsZeroShot [53]	✓	8144	8041	196	
	STL10ZeroShot [18]		5000	8000	10	
	SUN397ZeroShot [107]		76127	21750	397	
	UCF101ZeroShot [87]		1786096	697222	101	

Table 7. **Datasets overview and metadata for ImageClassification, ImageMultiLabelClassification, ImageClustering and ZeroShot-Classification tasks.** * For ImageMultiLabelClassification, the number of labels per sample is between the given interval. Further, we again note that with the large scales of training set in classification datasets, we adopt the few-shot linear probe paradigm in the evaluation.

Type	Task	MIEB-lite	# Samples Test	# Choices	Supported Languages	# Samples per language	Metric
Any2AnyMultiChoice	CVBenchCount [95]	✓	788	[4-6]	en	-	Accuracy
	CVBenchRelation [95]	✓	650	2	en	-	
	CVBenchDepth [95]	✓	600	2	en	-	
	CVBenchDistance [95]	✓	600	2	en	-	
	BLINKIT2IMultiChoice [30]	✓	402	2	en	-	
	BLINKIT2TMultiChoice [30]		1073	[2-4]	en	-	
ImageTextPairClassification*	AROCocoOrder [114]	✓	25010	5	-	-	Text Accuracy
	AROFlickrOrder [114]	✓	5000	5	-	-	
	AROVISualAttribution [114]	✓	28748	2	-	-	
	AROVISualRelation [114]	✓	23937	2	-	-	
	SugarCrepe [40]		7511	2	-	-	Accuracy
	Winoground [94]	✓	400	2	-	-	
	ImageCoDe [55]	✓	25322	10	-	-	
VisualSTS	STS12VisualSTS [105]		5342	-	en	-	Cosine Spearman
	STS13VisualSTS [105]	✓	1500	-	en	-	
	STS14VisualSTS [105]		3750	-	en	-	
	STS15VisualSTS [105]	✓	3000	-	en	-	
	STS16VisualSTS [105]		1186	-	en	-	
	STS17MultilingualVisualSTS [105]	✓	5346	-	ar-ar, en-ar, en-de, en-en, en-tr, es-en, es-es, fr-en, it-en, ko-ko, nl-en	250 each, except ko-ko with 2.85k	
	STSBenchmarkMultilingualVisualSTS [105]	✓	86280	-	en, de, es, fr, it, nl, pl, pt,ru, zh	8628 each	

Table 8. **Datasets overview and metadata for Any2AnyMultipleChoice, ImageTextPairClassification and Visual STS tasks.** * For *ImageTextPairClassification*, only 1 caption is correct over all the available ones for a sample.

model name	CIFAR10	CIFAR100	ImageNet10	ImageNetDog15	TinyImageNet	Avg.
EVA02-CLIP-bigE-14-plus	98.65	89.51	99.09	91.08	83.57	92.38
EVA02-CLIP-bigE-14	90.30	89.03	94.32	89.85	83.58	89.42
EVA02-CLIP-L-14	97.83	86.14	94.37	83.57	79.44	88.27
laion/CLIP-ViT-L-14-DataComp.XL-s13B-b90K	93.65	84.26	93.39	82.60	78.28	86.44
laion/CLIP-ViT-bigG-14-laion2B-39B-b160k	87.66	79.97	98.75	86.09	75.49	85.59
laion/CLIP-ViT-H-14-laion2B-s32B-b79K	88.10	78.69	93.93	85.93	72.67	83.86
nomic-ai/nomic-embed-vision-v1.5	87.39	81.16	95.80	81.19	72.65	83.64
laion/CLIP-ViT-L-14-laion2B-s32B-b82K	93.62	77.43	93.74	81.09	71.62	83.50
facebook/dinov2-large	79.90	79.93	92.23	86.20	77.22	83.10
facebook/dinov2-base	82.62	77.20	93.93	85.67	74.31	82.74
laion/CLIP-ViT-g-14-laion2B-s34B-b88K	87.63	78.13	94.38	81.46	72.10	82.74
EVA02-CLIP-B-16	89.23	83.51	89.22	74.82	75.96	82.55
voyage-multimodal-3	86.22	75.15	97.58	83.82	69.29	82.41
google/siglip-large-patch16-256	83.61	76.23	97.87	86.40	66.52	82.13
google/siglip-so400m-patch14-384	83.79	76.67	98.19	83.57	68.31	82.11
laion/CLIP-ViT-B-16-DataComp.XL-s13B-b90K	89.93	78.21	93.42	74.98	72.13	81.73
facebook/dinov2-giant	76.84	75.77	91.84	92.63	70.13	81.44
facebook/dinov2-small	79.25	72.62	91.23	87.27	70.65	80.20
google/siglip-large-patch16-384	81.61	74.43	93.28	84.17	66.21	79.94
laion/CLIP-ViT-B-32-laion2B-s34B-b79K	83.76	70.92	95.22	76.31	63.76	77.99
Salesforce/blip-itm-large-coco	84.95	72.62	98.29	67.56	64.24	77.53
laion/CLIP-ViT-B-32-DataComp.XL-s13B-b90K	79.81	74.85	91.54	73.68	66.98	77.37
Salesforce/blip-itm-large-flickr	87.94	70.67	94.34	68.36	60.86	76.43
openai/clip-vit-large-patch14	80.87	64.54	94.00	72.83	69.82	76.41
google/siglip-base-patch16-384	71.62	67.78	97.63	86.16	58.15	76.27
BAAI/bge-visualized-base	82.16	77.80	98.33	49.37	73.28	76.19
google/siglip-base-patch16-256	76.82	67.58	92.57	80.47	58.73	75.24
google/siglip-base-patch16-512	73.95	66.56	93.32	79.61	59.82	74.65
google/siglip-base-patch16-256-multilingual	75.94	67.89	92.63	80.44	55.88	74.56
google/siglip-base-patch16-224	76.11	67.01	92.61	78.18	58.58	74.50
blip2-pretrain	96.67	81.46	97.77	20.27	73.86	74.01
nyu-visionx/moco-v3-vit-b	74.69	63.99	90.30	80.77	59.53	73.86
Salesforce/blip-image-captioning-large	77.64	68.45	93.27	67.38	61.74	73.70
BAAI/bge-visualized-m3	81.41	73.89	97.74	43.07	71.72	73.57
TIGER-Lab/VLM2Vec-LoRA	72.89	60.56	97.03	71.48	61.22	72.64
nyu-visionx/moco-v3-vit-l	71.65	60.60	86.41	80.70	59.14	71.70
TIGER-Lab/VLM2Vec-Full	69.43	60.72	92.64	69.29	61.51	70.72
Salesforce/blip-itm-base-coco	70.83	60.44	93.19	70.31	58.19	70.59
roykong/e5-v	82.58	70.43	93.85	36.73	66.64	70.05
jinaai/jina-clip-v1	74.12	64.84	96.69	52.66	61.47	69.95
openai/clip-vit-base-patch16	69.25	59.35	92.58	63.25	62.90	69.47
openai/clip-vit-base-patch32	73.85	58.07	93.14	54.12	60.34	67.90
blip2-finetune-coco	90.37	75.81	93.12	8.97	70.92	67.84
Salesforce/blip-itm-base-flickr	63.94	58.89	92.46	66.00	55.07	67.27
Salesforce/blip-image-captioning-base	64.18	53.81	90.94	58.78	47.76	63.09
kakaobrain/align-base	54.13	50.68	84.21	58.88	50.03	59.59

Table 9. **Clustering Results.**

model name	CVBenchCount	CVBenchDepth	CVBenchDistance	CVBenchRelation	BLINKIT2IMultiChoice	BLINKIT2TMultiChoice	Avg.
TIGER-Lab/VLM2Vec-Full	62.18	62.17	58.00	71.69	72.39	46.28	62.12
TIGER-Lab/VLM2Vec-LoRA	62.56	62.50	58.17	71.08	72.39	45.40	62.02
laion/CLIP-ViT-B-16-DataComp.XL-s13B-b90K	61.93	52.50	46.00	49.23	74.63	41.74	54.34
google/siglip-base-patch16-512	55.20	53.67	42.83	51.38	74.38	41.74	53.20
blip2-pretrain	46.95	57.67	50.17	47.69	74.38	41.99	53.14
google/siglip-base-patch16-384	53.43	52.17	42.17	51.69	75.87	41.49	52.80
blip2-finetune-coco	44.54	59.67	52.33	48.77	71.39	39.60	52.72
BAAI/bge-visualized-base	50.25	49.00	56.33	48.15	73.63	37.20	52.43
Salesforce/blip-itm-base-flickr	60.66	44.67	50.33	53.08	66.92	38.46	52.35
laion/CLIP-ViT-L-14-DataComp.XL-s13B-b90K	43.27	55.83	46.50	55.54	73.13	39.72	52.33
google/siglip-base-patch16-256	54.44	52.00	40.67	51.08	73.63	41.24	52.18
roykong/e5-v	39.21	48.50	43.83	59.69	71.89	48.30	51.90
google/siglip-base-patch16-256-multilingual	34.64	54.00	49.00	53.85	75.12	40.86	51.25
Salesforce/blip-itm-large-coco	45.30	50.00	49.67	48.77	74.38	38.46	51.10
google/siglip-base-patch16-224	43.91	51.50	42.67	51.54	75.37	41.36	51.06
Salesforce/blip-image-captioning-large	14.72	63.33	59.67	46.92	70.40	39.61	49.11
voyage-multimodal-3	26.40	53.17	47.50	53.54	69.65	41.11	48.56
Salesforce/blip-itm-base-coco	26.65	45.17	45.50	52.92	76.12	37.20	47.26
Salesforce/blip-itm-large-flickr	25.25	46.83	52.00	53.23	68.41	36.32	47.01
openai/clip-vit-base-patch16	20.81	51.67	46.17	49.85	71.64	41.36	46.92
nomic-ai/nomic-embed-vision-v1.5	21.83	45.33	50.33	48.62	75.37	38.84	46.72
google/siglip-so400m-patch14-384	21.70	48.33	40.00	53.38	76.37	37.70	46.25
laion/CLIP-ViT-B-32-DataComp.XL-s13B-b90K	23.86	49.17	43.67	47.38	72.64	39.60	46.05
laion/CLIP-ViT-L-14-laion2B-s32B-b82K	8.25	49.17	47.50	55.08	74.38	40.73	45.85
laion/CLIP-ViT-H-14-laion2B-s32B-b79K	19.80	48.67	40.17	50.92	74.63	40.60	45.80
kakaobrain/align-base	47.59	43.17	50.83	47.08	46.77	38.71	45.69
jinaai/jina-clip-v1	14.85	49.33	47.00	50.77	74.88	35.44	45.38
google/siglip-large-patch16-384	8.76	54.67	45.83	50.92	73.63	38.34	45.36
EVA02-CLIP-B-16	36.80	53.33	53.00	49.54	40.55	38.84	45.34
google/siglip-large-patch16-256	8.88	56.17	46.17	48.15	73.13	36.70	44.87
laion/CLIP-ViT-g-14-laion2B-s34B-b88K	10.15	47.00	41.33	50.15	76.12	40.23	44.16
openai/clip-vit-large-patch14	2.66	52.67	46.83	50.92	71.14	40.35	44.10
BAAI/bge-visualized-m3	7.61	45.33	49.33	50.62	73.88	36.32	43.85
EVA02-CLIP-bigE-14	30.46	48.83	48.17	49.85	44.53	39.60	43.57
Salesforce/blip-image-captioning-base	10.15	51.50	55.33	52.62	58.24	32.83	43.44
laion/CLIP-ViT-bigG-14-laion2B-39B-b160k	4.19	47.17	42.17	48.15	73.13	44.14	43.16
laion/CLIP-ViT-B-32-laion2B-s34B-b79K	0.38	50.00	40.83	49.69	73.38	43.51	42.97
openai/clip-vit-base-patch32	6.60	45.33	46.00	48.46	70.15	39.85	42.73
EVA02-CLIP-bigE-14-plus	10.15	43.83	40.50	47.38	51.99	42.75	39.43
EVA02-CLIP-L-14	1.02	49.50	53.50	45.69	45.27	41.24	39.37

Table 10. Vision-centric QA Results.

model name	XFde	XFen	XFes	XFfd	XFja	XFpu	XFtr	XFzh	XMar	XMbn	XMes	XMda	XMde	XMel	XMen	XMes	XMfa	WMg	WMd	WMr	WMu	WMj	WMh	WMa	WMo
royalecomp-5-v	80.69	86.64	80.29	80.68	87.57	84.46	68.64	58.92	66.15	68.38	83.51	69.68	68.12	74.79	73.14	67.60	54.28	71.81	69.73	52.76	65.34	74.49	81.30	80.47	75.97
google/glipg-base-patch-6x-256-multilingual	80.69	80.62	83.73	85.23	72.20	44.93	83.90	70.66	63.87	61.58	68.54	62.85	66.18	74.79	67.60	54.28	71.81	69.73	52.76	65.34	74.49	81.30	80.47	75.97	
voyage/multimodal-3	80.48	88.90	87.83	88.53	72.20	79.25	88.23	48.56	86.47	49.83	81.65	51.42	55.39	85.63	79.82	56.24	74.70	75.66	36.97	22.21	17.98	81.86	79.54	77.71	
google/glipg-large-patch-3	77.81	85.10	85.88	83.88	66.55	28.71	78.83	64.72	40.02	51.10	21.26	51.57	55.92	80.51	80.39	35.81	71.15	75.40	32.93	28.84	20.53	78.83	78.32	78.32	
google/glipg-large-patch-6x-256	76.42	85.10	85.88	83.88	66.55	28.71	78.83	64.72	40.02	51.10	21.26	51.57	55.92	80.51	80.39	35.81	71.15	75.40	32.93	28.84	20.53	78.83	78.32	78.32	
BAAtghe-visualized-m3	54.91	62.20	59.98	54.09	49.88	57.49	50.96	37.78	38.72	38.72	38.72	38.72	38.72	38.72	38.72	38.72	38.72	38.72	38.72	38.72	38.72	38.72	38.72	38.72	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.73	79.73	72.17	
google/glipg-base-patch-6x16	73.71	85.48	84.42	83.48	25.71	70.61	51.24	34.90	37.42	38.09	44.15	75.38	22.62	71.08	73.71	17.69	14.74	76.04	13.31	1.47	28.54	29.			

Table 11. Multilingual Retrieval Results. The average is the aggregated average of the 3 big tasks.

model name	STS12	STS13	STS14	STS15	STS16	STS17	STS-b	mean
voyage-multimodal-3	71.62	81.60	77.98	86.85	82.62	89.68	82.55	81.84
royokong/e5-v	73.15	78.18	74.88	84.22	79.45	85.84	79.40	79.30
TIGER-Lab/VLM2Vec-Full	71.15	65.88	62.63	76.00	75.36	83.72	73.75	72.64
TIGER-Lab/VLM2Vec-LoRA	71.18	65.87	62.61	75.92	75.34	83.55	73.64	72.59
EVA02-CLIP-bigE-14-plus	63.36	68.00	66.38	79.45	75.26	82.87	68.59	71.99
laion/CLIP-ViT-bigG-14-laion2B-39B-b160k	62.81	68.16	65.50	78.67	74.89	79.97	66.54	70.93
laion/CLIP-ViT-L-14-DataComp.XL-s13B-b90K	62.36	67.64	64.25	77.36	73.48	80.63	63.38	69.87
google/siglip-large-patch16-384	66.30	62.08	61.66	77.11	73.27	79.58	66.59	69.51
laion/CLIP-ViT-g-14-laion2B-s34B-b88K	61.85	66.43	62.32	76.73	72.67	79.88	64.13	69.14
EVA02-CLIP-bigE-14	62.24	62.36	62.17	77.41	73.63	80.96	62.85	68.80
laion/CLIP-ViT-B-16-DataComp.XL-s13B-b90K	64.19	63.81	62.34	75.48	69.90	80.04	63.51	68.47
google/siglip-so400m-patch14-384	61.90	62.95	60.58	76.17	73.48	78.41	62.63	68.02
google/siglip-base-patch16-512	64.97	59.10	61.13	75.08	71.27	80.09	62.21	67.69
google/siglip-large-patch16-256	63.94	59.44	59.35	75.74	71.83	79.21	62.50	67.43
google/siglip-base-patch16-384	64.62	59.38	61.17	74.34	70.29	79.27	60.28	67.05
Salesforce/blip-itm-base-coco	62.91	55.14	60.17	72.83	71.59	77.32	66.50	66.64
google/siglip-base-patch16-256	65.01	58.02	60.36	74.25	69.09	78.73	57.65	66.16
openai/clip-vit-base-patch16	63.82	63.26	56.99	73.32	68.91	78.18	57.93	66.06
laion/CLIP-ViT-L-14-laion2B-s32B-b82K	57.52	62.75	59.94	74.55	70.61	75.92	59.43	65.82
laion/CLIP-ViT-H-14-laion2B-s32B-b79K	57.00	62.25	58.62	74.40	70.57	76.69	58.99	65.50
google/siglip-base-patch16-256-multilingual	66.62	54.80	59.00	72.65	68.33	80.53	56.29	65.46
openai/clip-vit-large-patch14	53.89	66.78	55.98	72.03	70.49	75.26	56.74	64.45
Salesforce/blip-itm-base-flickr	59.24	54.45	57.87	71.10	68.17	75.97	62.93	64.25
google/siglip-base-patch16-224	63.19	55.40	57.99	73.07	67.79	77.78	54.50	64.25
BAAI/bge-visualized-m3	63.93	56.91	58.19	70.94	63.49	79.18	56.48	64.16
EVA02-CLIP-L-14	53.75	60.82	57.12	71.53	67.46	80.14	50.46	63.04
Salesforce/blip-itm-large-coco	62.32	50.97	55.16	70.15	67.33	75.69	58.53	62.88
kakaobrain/align-base	53.17	57.50	56.01	69.13	66.43	77.55	59.42	62.74
jinaai/jina-clip-v1	57.96	55.80	56.95	70.52	67.98	76.94	52.18	62.62
Salesforce/blip-image-captioning-large	61.67	50.18	54.12	70.03	66.63	76.43	56.41	62.21
BAAI/bge-visualized-base	55.35	57.31	57.57	68.27	62.39	75.52	54.66	61.58
Salesforce/blip-itm-large-flickr	59.68	47.46	52.82	68.29	64.20	72.77	55.86	60.16
laion/CLIP-ViT-B-32-laion2B-s34B-b79K	53.70	57.16	52.74	66.64	61.30	74.69	50.48	59.53
laion/CLIP-ViT-B-32-DataComp.XL-s13B-b90K	54.86	45.82	48.85	64.02	59.62	73.31	49.15	56.52
Salesforce/blip-image-captioning-base	49.34	46.84	48.29	60.57	60.54	72.56	49.54	55.38
openai/clip-vit-base-patch32	53.81	52.50	43.69	59.56	53.01	71.01	47.17	54.39
blip2-finetune-coco	41.36	38.11	38.33	54.36	46.06	62.61	39.18	45.72
EVA02-CLIP-B-16	40.25	36.57	39.17	51.18	48.86	54.15	31.58	43.11
blip2-pretrain	38.81	38.72	35.57	51.81	42.20	58.49	33.68	42.75
nomic-ai/nomic-embed-vision-v1.5	40.13	21.22	21.44	27.21	31.39	40.46	23.16	29.29
facebook/dinov2-base	24.13	5.82	0.36	13.75	18.05	43.02	12.65	16.83
facebook/dinov2-giant	24.34	1.18	1.06	13.65	18.43	37.07	9.48	15.03
nyu-visionx/moco-v3-vit-b	24.03	2.19	0.63	11.48	19.80	39.54	6.56	14.89
nyu-visionx/moco-v3-vit-l	20.90	3.38	-1.13	12.99	22.00	40.27	4.70	14.73
facebook/dinov2-large	17.45	0.05	-2.39	12.28	19.35	43.67	6.31	13.82
facebook/dinov2-small	13.39	2.39	-1.9	12.02	16.47	43.1	5.37	12.98

Table 12. **Visual STS English Results.** Note that for STS-17 and STS-b, we only average the English subset here.

model name	ko-ko	ar-ar	en-ar	en-de	en-tr	es-en	es-es	fr-en	it-en	nl-en	mean
voyage-multimodal-3	62.80	65.75	34.40	80.42	44.98	74.72	83.70	75.07	77.76	78.25	67.79
royokong/e5-v	14.45	32.52	11.28	53.00	23.88	51.92	74.42	44.98	44.50	54.29	40.52
google/siglip-so400m-patch14-384	13.65	45.76	11.22	46.07	30.62	40.08	73.62	46.36	36.45	44.95	38.88
openai/clip-vit-large-patch14	11.07	39.12	18.95	45.71	39.70	36.76	70.11	44.06	40.17	41.63	38.73
TIGER-Lab/VLM2Vec-Full	17.96	36.74	7.10	36.47	16.96	46.72	72.95	44.67	35.48	42.37	35.74
TIGER-Lab/VLM2Vec-LoRA	17.99	37.24	6.54	36.42	16.69	47.32	72.77	44.70	35.33	42.40	35.74
google/siglip-base-patch16-256-multilingual	16.64	28.48	1.67	45.64	20.73	47.14	73.28	41.91	40.14	38.85	35.45
google/siglip-large-patch16-384	15.67	32.51	14.53	35.06	30.00	39.64	72.06	35.62	33.52	33.19	34.18
google/siglip-base-patch16-512	23.37	29.28	16.98	37.38	25.21	34.41	71.24	38.53	28.49	34.33	33.92
google/siglip-base-patch16-384	23.08	34.56	17.04	35.29	22.75	32.58	72.25	37.39	27.05	32.36	33.43
google/siglip-large-patch16-256	16.00	31.32	16.79	31.32	18.98	36.14	71.79	34.93	40.67	36.17	33.41
laion/CLIP-ViT-L-14-DataComp.XL-s13B-b90K	14.28	36.47	12.75	43.10	19.70	37.37	71.62	36.88	30.78	30.76	33.37
openai/clip-vit-base-patch16	10.54	36.25	13.13	41.57	35.42	24.63	62.95	38.72	31.40	38.63	33.32
laion/CLIP-ViT-H-14-laion2B-s32B-b79K	19.39	33.39	19.49	43.78	16.68	27.99	62.58	39.32	28.59	37.33	32.85
laion/CLIP-ViT-bigG-14-laion2B-39B-b160k	14.38	32.39	12.21	36.74	14.99	30.44	69.77	39.77	36.44	34.83	32.20
Salesforce/blip-itm-large-coco	19.71	30.04	17.25	41.46	21.80	29.98	60.52	27.65	29.31	41.20	31.89
google/siglip-base-patch16-256	21.40	30.46	12.67	30.19	19.81	28.50	71.68	36.55	28.75	30.72	31.07
google/siglip-base-patch16-224	21.00	25.03	14.36	31.20	24.80	29.32	69.85	35.70	27.46	28.98	30.77
Salesforce/blip-itm-base-flickr	19.73	35.78	9.69	38.30	9.73	22.46	66.17	36.40	23.99	40.03	30.23
Salesforce/blip-image-captioning-large	19.14	32.45	11.21	36.68	16.77	23.02	62.57	27.84	25.01	39.19	29.39
Salesforce/blip-itm-base-coco	22.40	32.47	0.66	38.33	15.47	20.01	69.76	28.71	27.11	35.35	29.03
jinaai/jina-clip-v1	19.32	27.80	7.55	31.29	2.29	29.59	67.75	24.06	24.69	34.41	26.88
Salesforce/blip-itm-large-flickr	22.30	30.66	8.47	32.23	6.44	27.43	54.65	24.72	24.76	36.65	26.83
EVA02-CLIP-bigE-14	10.97	29.99	13.49	22.76	6.39	29.03	57.16	36.66	33.43	26.16	26.60
laion/CLIP-ViT-g-14-laion2B-s34B-b88K	17.17	29.93	14.27	28.50	-4.79	34.19	66.07	29.70	29.02	21.18	26.52
kakaobrain/align-base	17.69	17.70	21.55	21.27	19.33	28.31	54.37	34.11	30.89	19.58	26.48
EVA02-CLIP-bigE-14-plus	11.36	31.51	10.71	24.33	-10.05	20.18	59.20	36.12	28.60	33.18	24.52
facebook/dinov2-small	14.31	32.77	12.52	31.11	25.47	11.11	35.33	20.38	27.78	29.28	24.01
blip2-finetune-coco	14.35	38.72	7.17	25.18	7.01	20.48	39.44	30.76	22.85	32.43	23.84
nyu-visionx/moco-v3-vit-l	14.19	30.79	6.57	32.83	26.85	12.51	37.19	25.41	25.19	22.88	23.44
Salesforce/blip-image-captioning-base	28.34	31.68	-0.59	22.27	5.81	16.40	56.30	17.16	23.48	27.69	22.85
EVA02-CLIP-L-14	14.77	29.65	18.89	3.52	16.61	12.23	45.55	32.61	30.84	23.63	22.83
facebook/dinov2-large	21.28	28.50	17.80	28.70	27.26	12.43	39.85	18.48	18.46	15.34	22.81
nyu-visionx/moco-v3-vit-b	13.96	32.60	19.96	29.48	20.01	15.71	32.47	23.99	20.73	18.86	22.78
laion/CLIP-ViT-B-16-DataComp.XL-s13B-b90K	19.21	18.40	-1.69	33.07	6.57	16.93	62.39	20.93	19.40	32.23	22.74
laion/CLIP-ViT-B-32-laion2B-s34B-b79K	16.25	21.73	4.20	17.82	17.37	25.07	57.03	22.91	21.49	23.38	22.72
laion/CLIP-ViT-L-14-laion2B-s32B-b82K	18.23	20.71	4.66	19.38	0.88	19.49	61.89	31.63	27.75	18.38	22.30
openai/clip-vit-base-patch32	18.10	28.30	8.25	22.15	17.97	12.15	47.56	19.48	22.74	25.05	22.18
blip2-pretrain	15.88	28.99	11.13	23.70	1.60	21.98	42.55	26.16	20.60	25.92	21.85
BAAI/bge-visualized-m3	14.76	18.55	-6.92	30.64	6.53	8.45	45.41	34.38	34.44	30.03	21.63
BAAI/bge-visualized-base	19.12	23.67	-1.90	17.37	3.89	2.68	50.85	27.90	25.82	35.52	20.49
facebook/dinov2-base	17.94	28.39	18.25	28.90	14.41	8.91	35.40	11.87	20.30	16.51	20.09
facebook/dinov2-giant	12.60	28.87	7.33	24.60	18.36	11.10	30.99	11.90	16.65	9.77	17.22
laion/CLIP-ViT-B-32-DataComp.XL-s13B-b90K	17.88	13.79	1.29	15.83	-1.65	17.27	53.68	17.71	19.68	11.65	16.71
EVA02-CLIP-B-16	18.02	19.60	3.58	7.10	22.06	4.52	48.86	12.82	17.07	11.99	16.56
nomic-ai/nomic-embed-vision-v1.5	19.97	19.17	-4.26	-7.82	-14.73	-6.12	38.29	-4.65	6.36	-2.8	4.34

Table 13. Visual STS cross-lingual Results.

model name	de	es	fr	it	nl	pl	pt	ru	zh	mean
voyage-multimodal-3	74.13	75.99	74.43	73.96	71.34	68.83	73.48	72.68	72.60	73.05
royokong/e5-v	58.29	64.24	61.79	64.11	55.15	52.17	63.59	35.88	12.57	51.98
TIGER-Lab/VLM2Vec-LoRA	52.69	60.83	58.64	52.77	49.55	45.77	55.09	45.43	17.35	48.68
TIGER-Lab/VLM2Vec-Full	52.65	60.78	58.68	52.63	49.62	45.78	55.06	45.39	17.22	48.65
Salesforce/blip-itm-base-coco	55.58	53.93	59.40	50.63	53.46	51.69	53.05	34.62	20.94	48.14
Salesforce/blip-itm-base-flickr	54.46	50.91	56.04	49.89	50.94	48.19	50.37	32.37	19.32	45.83
google/siglip-large-patch16-384	55.72	56.23	54.78	54.24	42.45	41.24	51.62	36.86	14.97	45.35
google/siglip-base-patch16-256-multilingual	48.11	53.45	51.69	51.65	41.15	48.08	46.85	51.42	13.48	45.10
google/siglip-so400m-patch14-384	50.73	56.23	54.72	51.56	45.65	35.84	45.88	39.68	14.86	43.91
google/siglip-large-patch16-256	53.23	52.39	50.98	50.46	40.22	42.55	45.53	37.50	12.38	42.80
google/siglip-base-patch16-512	45.18	49.45	53.46	47.26	43.27	44.95	43.68	39.47	14.14	42.32
jinaai/jina-clip-v1	47.25	47.42	53.08	48.58	47.44	47.15	44.23	34.84	10.67	42.30
google/siglip-base-patch16-384	45.57	48.15	51.66	45.55	42.49	44.71	43.36	36.71	16.70	41.66
laion/CLIP-ViT-L-14-DataComp.XL-s13B-b90K	47.05	45.13	50.76	44.24	38.21	34.94	37.87	30.89	14.65	38.19
google/siglip-base-patch16-256	42.40	44.36	46.72	41.73	38.72	42.34	39.56	35.01	9.34	37.80
laion/CLIP-ViT-bigG-14-laion2B-39B-b160k	38.00	43.63	52.36	44.84	34.84	33.19	37.51	28.43	19.19	36.89
laion/CLIP-ViT-g-14-laion2B-s34B-b88K	48.01	41.47	45.03	37.56	36.84	36.02	32.73	30.53	23.65	36.87
google/siglip-base-patch16-224	40.38	41.80	45.75	37.90	37.64	42.65	37.01	32.81	10.79	36.30
Salesforce/blip-itm-large-coco	42.62	36.03	43.42	39.51	37.83	39.55	32.01	32.30	16.21	35.50
laion/CLIP-ViT-H-14-laion2B-s32B-b79K	41.31	39.11	48.44	34.22	34.48	33.20	32.09	26.94	23.88	34.85
laion/CLIP-ViT-B-16-DataComp.XL-s13B-b90K	41.25	31.76	45.92	34.60	35.79	40.38	36.57	26.67	15.18	34.24
Salesforce/blip-itm-large-flickr	40.76	33.39	41.04	39.40	34.23	40.14	28.92	30.72	18.93	34.17
EVA02-CLIP-bigE-14-plus	31.96	37.53	46.88	38.94	29.78	27.50	33.35	25.05	16.20	31.91
openai/clip-vit-large-patch14	37.50	44.18	47.53	36.89	32.51	23.41	35.49	14.06	12.12	31.52
laion/CLIP-ViT-B-32-DataComp.XL-s13B-b90K	38.22	28.92	38.00	23.87	32.90	43.21	28.62	27.29	13.95	30.55
EVA02-CLIP-bigE-14	37.10	35.37	41.49	31.98	28.04	25.33	30.62	25.35	14.58	29.98
laion/CLIP-ViT-L-14-laion2B-s32B-b82K	39.99	31.22	40.69	28.57	28.49	27.58	25.85	22.66	22.58	29.74
laion/CLIP-ViT-B-32-laion2B-s34B-b79K	41.43	26.40	35.96	28.13	29.75	34.85	28.60	21.84	19.50	29.61
BAAI/bge-visualized-base	32.40	28.99	37.14	29.10	31.45	36.66	29.16	20.91	15.35	29.02
EVA02-CLIP-B-16	30.68	27.02	36.05	27.13	29.71	32.41	29.06	25.40	16.71	28.24
kakaobrain/align-base	34.60	25.79	38.57	26.95	32.79	28.88	22.60	23.02	19.63	28.09
openai/clip-vit-base-patch16	32.72	30.81	39.06	29.46	23.46	28.15	26.30	14.69	11.85	26.28
BAAI/bge-visualized-m3	32.04	22.26	36.13	27.05	24.47	27.96	26.80	17.00	14.02	25.30
nomic-ai/nomic-embed-vision-v1.5	29.92	23.12	23.35	22.93	21.92	30.96	20.85	25.16	16.55	23.86
EVA02-CLIP-L-14	22.00	28.24	33.36	22.67	21.75	21.31	18.91	16.84	14.04	22.12
blip2-finetune-coco	24.59	20.31	27.19	21.90	21.13	25.57	22.40	19.31	14.71	21.90
blip2-pretrain	22.79	19.74	31.75	23.77	17.54	26.10	24.49	17.69	11.26	21.68
openai/clip-vit-base-patch32	29.41	23.43	26.85	20.55	19.05	30.37	14.01	18.59	10.52	21.42
facebook/dinov2-base	23.73	16.42	19.46	16.06	17.90	21.00	11.48	17.09	23.32	18.50
facebook/dinov2-giant	21.10	16.14	22.06	12.74	16.13	21.79	16.47	17.30	19.34	18.12
facebook/dinov2-large	20.60	13.14	20.47	10.65	15.91	19.60	11.28	19.78	22.36	17.09
nyu-visionx/moco-v3-vit-l	14.76	9.48	15.35	8.17	11.68	16.31	11.01	12.31	20.54	13.29
nyu-visionx/moco-v3-vit-b	12.98	9.99	15.34	6.77	12.62	14.02	10.74	13.33	18.30	12.68
facebook/dinov2-small	10.87	11.58	12.94	6.70	9.17	13.27	8.18	9.96	17.97	11.18

Table 14. Visual STS multilingual Results.

Model name	ArxivQA	DocVQA	InfoVQA	Shift Project	Syn.Doc QAAI	Syn.Doc QAEnergy	Syn.Doc QAGov.	Syn.Dic QAHealth.	Syn. Tabfquad	Tatdqa	Avg.
voyage-multimodal-3	84.61	49.76	86.11	77.48	83.56	79.42	83.92	82.39	56.36	27.63	71.13
royokong/e5-v	48.27	34.73	69.22	42.47	78.91	78.11	82.16	82.31	81.37	29.32	62.69
google/siglip-so400m-patch14-384	50.21	31.28	69.73	25.04	67.78	73.52	75.35	83.10	60.29	27.52	56.38
google/siglip-large-patch16-384	47.45	28.53	64.11	25.37	64.87	67.34	74.52	74.67	61.09	25.26	53.32
google/siglip-base-patch16-512	46.02	28.38	64.51	22.95	63.51	66.79	72.79	79.70	50.71	25.30	52.06
TIGER-Lab/VLM2Vec-Full	42.84	26.74	66.68	25.01	53.51	63.49	64.03	70.73	63.54	21.45	49.80
TIGER-Lab/VLM2Vec-LoRA	42.59	26.92	67.64	24.34	54.02	63.35	64.06	70.62	61.93	21.61	49.71
google/siglip-base-patch16-384	43.59	26.43	59.28	14.46	55.75	57.47	58.54	67.67	47.61	19.19	45.00
laion/CLIP-ViT-bigG-14-laion2B-39B-b160k	38.84	20.44	60.90	25.02	55.42	59.95	62.27	57.86	35.02	16.21	43.19
laion/CLIP-ViT-H-14-laion2B-s32B-b79K	33.03	19.14	58.82	21.81	54.09	60.23	52.92	55.50	33.11	15.41	40.41
google/siglip-large-patch16-256	40.19	22.39	54.09	9.13	43.40	50.79	55.45	56.03	49.81	12.38	39.37
laion/CLIP-ViT-L-14-DataComp.XL-s13B-b90K	34.51	19.68	55.61	16.19	47.20	58.93	50.28	58.04	30.70	15.27	38.64
openai/clip-vit-large-patch14	28.64	16.69	62.44	17.05	38.25	61.62	52.84	60.23	30.95	11.00	37.97
laion/CLIP-ViT-g-14-laion2B-s34B-b88K	32.82	18.10	56.85	16.72	40.12	60.07	52.21	52.09	32.51	14.80	37.63
laion/CLIP-ViT-L-14-laion2B-s32B-b82K	30.96	17.79	52.46	13.10	44.98	57.08	49.29	53.15	29.13	14.68	36.26
EVA02-CLIP-bigE-14-plus	34.86	16.84	55.19	12.76	34.57	44.99	43.14	42.47	30.36	7.52	32.27
google/siglip-base-patch16-256	35.17	19.42	48.73	5.45	31.06	41.28	40.07	49.94	37.00	8.50	31.66
EVA02-CLIP-bigE-14	32.72	16.35	54.80	10.14	33.53	48.50	41.32	42.98	28.80	7.09	31.62
kakaobrain/align-base	23.31	18.03	43.15	10.47	41.43	49.76	42.07	47.46	29.00	9.69	31.44
laion/CLIP-ViT-B-16-DataComp.XL-s13B-b90K	28.88	13.97	46.88	7.25	32.17	38.53	31.05	35.83	26.60	9.07	27.02
google/siglip-base-patch16-256-multilingual	30.33	16.96	45.28	3.89	22.72	29.93	28.73	37.17	44.16	4.38	26.35
google/siglip-base-patch16-224	31.49	16.04	46.11	3.71	25.27	35.53	32.35	37.01	29.04	5.08	26.16
openai/clip-vit-base-patch16	26.54	14.60	51.70	7.13	22.86	32.43	39.84	37.54	17.61	4.71	25.50
EVA02-CLIP-L-14	30.44	11.24	48.48	4.44	20.36	29.87	18.37	33.68	20.64	3.28	22.08
Salesforce/blip-itm-large-flickr	24.89	12.11	33.95	4.66	17.40	23.16	16.14	27.18	21.87	3.33	18.47
Salesforce/blip-itm-base-coco	20.55	11.68	32.30	5.05	18.70	18.68	24.74	25.58	19.42	3.42	18.01
Salesforce/blip-itm-large-coco	22.65	11.25	31.37	4.08	16.22	19.03	19.85	24.45	24.59	3.50	17.70
jinaai/jina-clip-v1	25.40	10.99	35.12	3.84	15.57	19.34	21.83	20.84	20.14	3.34	17.64
laion/CLIP-ViT-B-32-laion2B-s34B-b79K	24.01	10.50	35.35	4.95	18.39	22.52	14.50	18.60	16.09	3.66	16.86
blip2-finetune-coco	14.68	10.37	31.97	4.08	13.78	18.23	17.47	23.95	17.60	3.80	15.59
Salesforce/blip-itm-base-flickr	17.06	10.81	29.65	4.50	14.73	15.23	15.23	20.40	19.33	2.71	14.96
openai/clip-vit-base-patch32	17.11	9.48	37.15	1.00	11.06	18.31	9.14	13.14	14.09	1.86	13.23
laion/CLIP-ViT-B-32-DataComp.XL-s13B-b90K	16.57	9.03	27.09	3.06	13.62	15.67	9.08	12.51	14.92	2.76	12.43
BAAI/bge-visualized-m3	18.10	8.26	32.79	1.39	9.91	8.91	8.41	12.58	21.61	1.81	12.38
blip2-pretrain	11.25	5.74	30.92	4.12	16.04	15.05	10.66	14.42	12.53	2.31	12.30
nomic-ai/nomic-embed-vision-v1.5	15.86	9.25	29.55	0.00	11.10	10.94	8.90	15.79	15.20	2.61	11.92
BAAI/bge-visualized-base	15.20	7.05	29.64	3.02	7.34	11.05	6.91	9.39	11.83	1.94	10.34
EVA02-CLIP-B-16	16.22	5.84	25.13	1.43	8.19	9.58	5.26	10.35	10.88	1.30	9.42

Table 15. Document Understanding Results.

model name	CIFAR10	DTD	EuroSAT	FER2013	GTSRB	MNIST	PatchCamelyon	STL10	VOC2007	mean
EVA02-CLIP-bigE-14-plus	99.50	81.14	93.86	50.84	88.99	92.79	76.48	99.76	91.68	86.11
google/siglip-so400m-patch14-384	96.92	80.81	88.97	47.41	86.39	96.11	75.41	99.51	92.40	84.88
google/siglip-large-patch16-384	96.74	80.47	89.62	46.20	85.76	96.21	77.31	99.33	92.23	84.87
laion/CLIP-ViT-bigG-14-laion2B-39B-b160k	98.42	79.50	92.22	47.30	87.69	96.12	71.25	99.53	91.81	84.87
laion/CLIP-ViT-g-14-laion2B-s34B-b88K	97.88	78.87	91.84	45.64	85.48	96.53	74.08	99.39	91.99	84.63
EVA02-CLIP-bigE-14	99.47	79.74	93.36	49.19	85.84	92.60	72.82	99.73	85.98	84.30
google/siglip-large-patch16-256	96.72	80.00	89.28	45.45	84.24	96.05	75.48	99.21	92.12	84.28
laion/CLIP-ViT-H-14-laion2B-s32B-b79K	97.64	79.26	92.36	44.29	83.89	96.17	73.02	99.39	92.11	84.24
laion/CLIP-ViT-L-14-laion2B-s32B-b82K	97.15	78.61	91.26	44.71	84.19	95.03	72.32	99.18	91.94	83.82
royokong/e5-v	94.14	72.24	87.51	53.96	80.02	91.60	72.39	98.81	96.11	82.98
laion/CLIP-ViT-L-14-DataComp.XL-s13B-b90K	98.55	78.50	77.57	41.32	88.12	96.16	73.53	99.44	91.68	82.76
google/siglip-base-patch16-512	92.66	79.48	86.40	42.92	80.76	95.48	73.52	98.72	92.63	82.51
google/siglip-base-patch16-256	93.34	78.64	87.61	42.46	79.87	95.71	73.10	98.35	92.29	82.37
google/siglip-base-patch16-384	92.91	79.05	86.99	42.08	80.15	95.35	73.57	98.63	92.54	82.36
google/siglip-base-patch16-256-multilingual	92.89	77.94	87.44	42.73	80.31	94.98	73.91	98.24	91.88	82.26
google/siglip-base-patch16-224	92.60	77.94	87.75	42.19	80.07	95.42	73.07	98.33	92.02	82.15
openai/clip-vit-large-patch14	96.15	72.78	80.54	47.11	83.59	93.70	74.74	99.39	90.93	82.10
blip2-finetune-coco	97.70	72.60	76.89	50.45	79.87	93.44	71.68	99.38	94.41	81.82
laion/CLIP-ViT-B-16-DataComp.XL-s13B-b90K	96.84	76.26	88.84	35.28	83.10	95.14	70.21	98.57	90.74	81.66
laion/CLIP-ViT-B-32-laion2B-s34B-b79K	94.05	74.00	88.93	40.98	78.19	95.00	69.68	97.77	90.28	80.99
blip2-pretrain	98.62	74.29	78.77	52.37	68.19	92.86	73.17	98.60	90.62	80.83
laion/CLIP-ViT-B-32-DataComp.XL-s13B-b90K	95.86	74.19	89.07	32.75	81.41	95.55	69.92	97.67	89.63	80.67
voyage-multimodal-3	95.54	72.56	79.27	46.69	75.52	94.48	67.79	98.78	78.51	78.79
openai/clip-vit-base-patch16	91.60	69.51	74.21	45.63	72.69	91.14	70.60	98.65	90.46	78.28
facebook/dinov2-giant	98.53	76.09	84.53	41.06	55.14	85.82	74.17	97.84	85.44	77.62
facebook/dinov2-base	96.45	75.93	81.66	39.94	53.48	86.71	72.73	97.72	85.94	76.73
facebook/dinov2-large	97.95	76.45	80.23	41.40	53.22	82.40	74.37	97.93	85.51	76.61
openai/clip-vit-base-patch32	89.85	66.61	67.23	42.88	70.12	89.47	70.96	97.73	90.07	76.10
facebook/dinov2-small	92.95	72.43	81.86	37.27	52.22	86.58	74.55	97.36	86.94	75.80
Salesforce/blip-itm-large-coco	95.74	70.59	80.90	48.09	64.53	83.92	67.69	98.85	69.32	75.52
TIGER-Lab/VLM2Vec-Full	87.93	68.51	75.80	51.41	65.06	86.75	68.21	97.60	71.00	74.70
TIGER-Lab/VLM2Vec-LoRA	87.94	68.48	75.74	51.37	65.09	86.71	68.16	97.60	70.97	74.67
BAAI/bge-visualized-base	97.75	68.26	83.34	44.65	52.04	81.55	65.19	99.19	68.89	73.43
Salesforce/blip-itm-base-coco	87.66	69.79	80.86	43.86	62.95	85.72	64.62	97.87	66.72	73.34
kakaobrain/align-base	81.23	74.04	65.29	35.89	59.44	86.78	68.30	95.95	91.81	73.19
Salesforce/blip-itm-large-flickr	94.34	69.16	79.05	45.43	58.18	83.56	66.09	98.37	64.03	73.13
jinaai/jina-clip-v1	90.62	68.06	83.27	44.50	57.54	84.04	62.97	97.06	66.89	72.77
nyu-visionx/moco-v3-vit-l	90.13	67.04	89.50	34.78	49.80	78.94	73.08	95.39	72.80	72.39
BAAI/bge-visualized-m3	96.27	62.98	77.77	44.63	50.14	80.83	68.29	98.84	67.35	71.90
EVA02-CLIP-L-14	98.99	65.09	83.89	44.24	59.34	74.80	69.04	99.39	51.74	71.83
nyu-visionx/moco-v3-vit-b	89.36	65.95	88.65	32.70	45.93	76.74	72.99	95.14	71.02	70.94
Salesforce/blip-itm-base-flickr	83.85	66.71	78.81	41.93	56.24	83.78	63.98	96.89	60.62	70.31
Salesforce/blip-image-captioning-large	94.58	66.27	60.57	43.60	59.85	80.69	66.72	98.23	45.21	68.41
EVA02-CLIP-B-16	98.12	61.34	77.12	43.70	38.39	76.46	65.57	99.00	45.06	67.20
nomic-ai/nomic-embed-vision-v1.5	97.25	64.16	49.01	32.04	49.03	76.17	65.69	98.59	60.33	65.81
Salesforce/blip-image-captioning-base	81.37	64.47	53.31	41.23	34.90	85.13	63.43	94.20	34.29	61.37

Table 16. Linear Probe for coarse-grained tasks.

model name	Birdsnap	Caltech101	CIFAR100	Country211	FGVCAircraft	Food101	Imagenet1k	OxfordFlowers	OxfordPets	RESISC45	StanfordCars	SUN397	UCF101	mean
EVA02-CLIP-bigE-14-plus	80.77	97.40	94.15	31.64	78.19	94.93	82.40	99.55	94.99	92.77	95.41	80.52	93.25	85.84
EVA02-CLIP-bigE-14	78.22	96.40	93.76	28.84	74.37	94.70	81.47	99.47	94.31	91.96	95.02	79.93	92.12	84.66
google/siglip-so400m-patch14-384	72.91	97.03	84.59	32.47	78.49	95.47	82.16	99.53	94.85	91.64	95.75	80.16	91.65	84.36
google/siglip-large-patch16-384	72.02	96.83	83.49	23.00	75.44	95.00	81.20	99.57	95.09	90.94	95.51	79.03	90.45	82.89
laion/CLIP-ViT-bigG-14-laion2B-39B-b160k	74.19	96.53	88.03	28.57	70.01	92.52	78.23	99.33	93.49	90.94	95.19	78.35	90.84	82.79
laion/CLIP-ViT-g-14-laion2B-s34B-b88K	71.86	95.36	86.62	26.10	65.99	91.13	77.32	99.18	92.71	90.74	94.95	78.19	89.10	81.48
laion/CLIP-ViT-L-14-DataComp.XL-s13B-b90K	72.60	96.44	88.85	24.59	64.15	92.73	77.29	99.10	92.42	90.44	93.89	77.18	88.64	81.41
laion/CLIP-ViT-H-14-laion2B-s32B-b79K	72.26	95.75	86.29	25.11	65.09	91.04	76.54	98.98	91.86	90.88	94.68	78.11	89.76	81.26
google/siglip-large-patch16-256	65.89	96.77	83.48	19.40	71.15	93.64	79.34	99.47	94.61	89.93	95.12	77.86	88.87	81.20
google/siglip-base-patch16-512	67.46	96.93	74.47	18.05	70.08	92.67	77.54	99.10	92.92	88.36	94.57	77.16	87.73	79.77
facebook/dinov2-giant	81.88	89.14	89.63	13.53	70.37	88.10	78.70	99.71	94.93	86.30	83.18	72.31	89.19	79.77
laion/CLIP-ViT-L-14-laion2B-s32B-b82K	68.42	93.79	84.73	22.02	60.45	89.61	74.67	98.82	91.70	90.14	93.90	77.06	87.49	79.45
google/siglip-base-patch16-384	66.16	97.11	74.81	17.38	69.00	92.13	76.77	99.02	92.71	88.44	94.45	76.93	86.96	79.37
facebook/dinov2-large	81.05	89.58	88.83	12.73	65.14	87.79	78.62	99.61	94.90	86.21	81.00	72.76	88.08	78.95
openai/clip-vit-large-patch14	67.59	94.32	79.99	26.97	56.19	91.99	75.10	98.92	91.94	89.64	87.43	76.08	87.78	78.76
google/siglip-base-patch16-256	60.18	96.82	75.67	14.98	66.13	90.25	74.73	99.00	91.68	87.52	93.72	75.66	85.24	77.82
google/siglip-base-patch16-224	58.91	96.79	74.10	14.58	66.07	89.88	74.19	98.57	91.44	87.65	93.70	75.27	84.80	77.38
google/siglip-base-patch16-256-multilingual	57.22	96.98	74.68	15.11	59.93	89.97	73.95	99.33	91.98	85.60	92.96	74.62	83.83	76.63
facebook/dinov2-base	77.24	89.45	84.49	10.73	62.74	84.44	75.92	99.57	94.12	81.30	78.53	71.03	85.51	76.54
laion/CLIP-ViT-B-16-DataComp.XL-s13B-b90K	62.55	95.36	83.40	16.98	53.93	88.07	70.75	98.92	88.79	87.64	91.22	73.72	82.81	76.47
openai/clip-vit-base-patch16	57.29	93.47	71.24	18.69	46.01	86.46	67.53	97.27	86.02	86.51	80.58	72.13	81.94	72.70
laion/CLIP-ViT-B-32-DataComp.XL-s13B-b90K	52.13	94.77	80.84	13.17	49.27	81.51	64.94	97.75	84.97	84.85	88.12	70.51	78.90	72.44
facebook/dinov2-small	71.37	88.58	77.02	8.10	58.67	77.68	69.40	99.51	92.01	76.86	69.89	66.65	80.53	72.02
laion/CLIP-ViT-B-32-laion2B-s34B-b79K	50.76	94.89	77.17	13.41	47.12	78.78	64.13	96.84	85.05	85.85	88.49	71.65	81.08	71.94
kakaobrain/align-base	46.25	96.93	58.83	15.16	40.19	82.74	67.18	96.24	80.71	83.82	85.22	74.09	80.12	69.80
royokong/e5-v	44.62	91.83	71.90	10.64	37.74	85.31	66.57	94.16	79.91	89.10	61.55	72.64	86.07	68.62
blip2-finetune-coco	41.23	90.25	82.26	8.72	35.21	84.13	65.51	94.06	66.92	87.60	73.49	72.34	87.55	68.41
BAAI/bge-visualized-base	45.16	90.59	82.96	10.12	35.91	84.12	64.86	95.25	78.21	83.09	66.29	73.62	77.76	68.30
openai/clip-vit-base-patch32	47.09	91.51	67.41	14.73	38.13	79.45	61.16	94.82	80.51	82.82	73.78	69.53	78.78	67.67
blip2-pretrain	30.33	91.82	87.51	10.75	34.27	88.24	58.72	96.61	43.79	88.59	82.81	75.64	88.33	67.49
Salesforce/blip-itm-large-coco	34.67	89.12	76.45	9.08	22.37	81.76	67.91	96.49	81.62	85.68	74.80	72.89	84.50	67.49
nomic-ai/nomic-embed-vision-v1.5	52.16	87.50	84.12	11.73	54.01	86.86	0.10	98.88	91.88	77.94	87.91	68.93	73.47	67.35
Salesforce/blip-itm-large-flickr	36.33	87.89	73.50	10.12	21.78	81.95	66.97	96.24	81.78	83.05	74.57	71.42	82.23	66.75
jinaai/jina-clip-v1	46.36	88.22	70.19	9.59	32.35	79.50	60.57	93.06	80.17	84.01	71.69	69.62	76.69	66.31
voyage-multimodal-3	32.69	91.39	78.13	8.90	22.52	87.38	58.51	92.65	86.56	87.34	52.91	76.31	84.33	66.12
EVA02-CLIP-L-14	0.22	89.87	87.17	18.12	54.65	90.21	0.10	98.02	90.25	84.52	89.30	68.46	81.93	65.60
Salesforce/blip-image-captioning-large	31.82	87.77	72.95	8.44	20.62	78.36	64.42	94.20	80.46	82.01	72.30	70.18	80.57	64.93
Salesforce/blip-itm-base-coco	26.99	88.63	59.69	8.74	24.01	76.31	60.60	87.55	76.07	81.93	74.86	71.10	81.81	62.95
BAAI/bge-visualized-m3	40.25	88.35	78.14	10.37	38.87	80.37	0.10	94.41	73.99	80.95	81.34	73.41	76.23	62.83
Salesforce/blip-itm-base-flickr	25.92	87.43	55.88	8.13	20.10	74.50	59.25	85.88	76.89	78.51	72.76	67.47	80.14	60.99
Salesforce/blip-image-captioning-base	20.63	86.20	52.57	9.53	17.31	68.59	50.03	85.35	59.01	75.11	67.39	64.54	72.88	56.09
nyu-visionx/moco-v3-vit-l	28.65	86.62	69.95	7.03	18.62	54.39	62.37	89.92	84.85	73.76	72.34	57.15	70.97	56.04
nyu-visionx/moco-v3-vit-b	26.87	85.44	70.18	6.56	18.90	50.54	62.39	88.80	82.65	72.55	20.23	55.18	70.11	54.65
TIGER-Lab/VLM2Vec-LoRA	0.22	92.40	60.20	8.35	22.06	74.68	0.10	84.29	81.80	79.41	40.14	71.06	76.52	53.17
TIGER-Lab/VLM2Vec-Full	0.22	92.22	60.19	8.35	22.02	74.71	0.10	84.20	81.79	79.43	40.22	71.04	76.50	53.15
EVA02-CLIP-B-16	0.22	88.76	82.82	0.47	39.64	80.76	0.10	95.67	87.52	76.19	0.55	0.46	72.88	48.16

Table 17. Linear Probe for fine-grained tasks.

model name	CIFAR10 ZeroShot	CLEVR ZeroShot	CLEVRCount ZeroShot	DTD ZeroShot	EuroSAT ZeroShot	FER2013 ZeroShot	GTSRB ZeroShot	MNIST ZeroShot	PatchCamelyon ZeroShot	RenderedSST2	STL10 ZeroShot	mean
google/siglip-so400m-patch14-384	96.89	22.43	40.57	66.91	58.69	54.21	64.46	88.56	54.82	70.07	98.75	65.12
voyage-multimodal-3	94.56	13.91	45.65	59.04	52.35	51.35	55.11	88.83	61.11	85.45	98.71	64.19
EVA02-CLIP-bigE-14-plus	99.37	19.97	29.72	63.99	71.30	54.51	68.24	73.93	64.05	61.50	98.96	64.14
laion/CLIP-ViT-bigG-14-laion2B-39B-b160k	97.94	20.05	29.71	64.20	66.56	57.13	61.15	77.09	62.45	63.37	98.23	63.44
google/siglip-large-patch16-256	96.14	21.47	40.65	64.73	53.80	56.59	61.30	85.00	52.30	61.67	99.11	62.98
laion/CLIP-ViT-g-14-laion2B-s34B-b88K	97.81	18.59	37.43	66.17	63.09	55.66	49.78	78.74	54.67	65.57	98.83	62.39
google/siglip-large-patch16-384	95.67	20.73	32.99	63.78	55.11	58.28	63.71	85.17	52.38	56.40	99.30	62.14
laion/CLIP-ViT-L-14-DataComp.XL-s13B-b90K	98.10	25.19	35.57	64.47	70.70	40.97	56.92	81.44	51.99	55.63	99.18	61.83
EVA02-CLIP-bigE-14	99.21	16.18	16.24	63.30	74.76	54.42	65.31	79.46	49.20	58.21	99.08	61.40
laion/CLIP-ViT-H-14-laion2B-s32B-b79K	97.12	16.85	26.57	62.50	72.30	50.82	57.49	78.10	51.87	62.00	98.31	61.27
laion/CLIP-ViT-L-14-laion2B-s32B-b82K	96.92	16.09	31.31	58.88	65.35	56.27	58.27	64.12	56.02	60.57	98.75	60.23
EVA02-CLIP-L-14	99.09	20.17	31.47	62.77	67.20	49.44	56.77	62.41	50.96	61.50	99.63	60.13
google/siglip-base-patch16-384	93.16	22.37	22.02	65.27	39.96	51.23	51.87	80.88	69.18	55.96	98.65	59.14
google/siglip-base-patch16-512	92.96	22.21	24.09	65.53	38.37	51.41	51.17	82.85	60.91	57.22	98.55	58.66
google/siglip-base-patch16-256	93.60	23.39	22.69	65.37	44.19	53.01	50.78	84.57	50.56	57.55	98.19	58.54
google/siglip-base-patch16-224	92.57	24.00	23.66	63.51	41.09	52.42	51.98	83.58	53.70	52.33	98.23	57.92
royokong/e5-v	89.66	15.80	20.72	54.52	50.48	58.44	46.17	73.55	53.84	76.06	96.58	57.80
google/siglip-base-patch16-256-multilingual	91.23	20.36	25.40	61.06	33.33	51.18	53.06	83.09	51.94	56.84	97.63	56.83
laion/CLIP-ViT-B-16-DataComp.XL-s13B-b90K	96.27	23.57	32.53	55.37	52.06	30.66	53.34	75.34	55.40	52.44	98.09	56.82
openai/clip-vit-large-patch14	95.17	16.08	19.43	52.82	60.85	47.52	48.71	62.91	50.44	69.80	99.46	56.65
laion/CLIP-ViT-B-32-laion2B-s34B-b79K	93.70	18.85	15.29	54.36	48.70	47.21	45.74	63.93	60.14	56.23	96.39	54.60
Salesforce/blip-itm-large-coco	94.78	19.08	29.03	54.63	49.20	47.35	34.82	60.68	52.68	50.08	98.33	53.70
laion/CLIP-ViT-B-32-DataComp.XL-s13B-b90K	95.30	20.64	12.94	54.41	55.31	27.90	48.89	72.09	50.15	49.42	96.30	53.03
blip2-pretrain	98.11	24.71	18.26	46.28	65.69	51.10	27.05	50.49	51.13	51.78	97.99	52.96
EVA02-CLIP-B-16	98.29	15.69	21.09	50.48	58.46	48.31	42.35	42.95	50.05	53.93	99.46	52.82
nomic-ai/nomic-embed-vision-v1.5	95.25	15.81	23.39	47.77	42.37	26.99	44.26	69.64	62.84	56.51	96.16	52.82
blip2-finetune-coco	97.37	25.03	15.96	44.84	52.31	51.88	40.33	48.00	52.97	50.63	99.03	52.58
jinaai/jina-clip-v1	93.39	15.62	22.35	52.87	47.37	47.21	38.76	48.58	50.73	58.98	97.81	52.15
openai/clip-vit-base-patch16	90.13	15.83	21.21	42.87	48.59	43.55	41.05	62.33	49.00	60.52	98.38	52.13
TIGER-Lab/VLM2Vec-Full	85.21	19.26	31.59	47.23	24.80	32.22	41.51	60.98	49.97	78.42	95.43	51.51
TIGER-Lab/VLM2Vec-LoRA	85.26	19.25	31.69	46.91	24.93	31.72	41.93	59.29	49.98	78.75	95.46	51.38
openai/clip-vit-base-patch32	88.31	16.34	23.20	41.91	49.74	43.52	34.42	48.99	61.88	58.48	97.30	51.28
Salesforce/blip-itm-large-flicker	93.88	17.32	13.94	52.98	43.50	47.99	33.25	58.51	51.54	52.83	98.21	51.27
Salesforce/blip-itm-base-coco	80.87	19.93	21.46	51.49	40.39	40.05	35.09	57.62	50.07	49.20	97.04	49.38
BAAI/hge-visualized-base	97.41	15.79	16.06	42.55	51.37	35.59	32.34	45.80	50.00	54.04	98.14	49.01
BAAI/hge-visualized-m3	94.71	21.03	14.01	33.40	51.11	37.77	31.08	57.94	51.36	57.00	96.76	48.74
kakaobrain/align-base	75.59	23.52	19.47	57.71	36.87	37.81	26.84	37.74	48.45	57.50	93.73	46.84
Salesforce/blip-itm-base-flicker	77.72	12.21	14.08	47.23	34.43	29.84	32.54	54.71	50.02	51.18	97.23	45.56

model name	Birdsnap ZeroShot	Caltech101 ZeroShot	CIFAR100 ZeroShot	Country211 ZeroShot	FGVCAircraft ZeroShot	Food101 ZeroShot	Imagenet1k ZeroShot	OxfordPets ZeroShot	RESISC45 ZeroShot	StanfordCars ZeroShot	SUN397 ZeroShot	UCF101 ZeroShot	Avg.
EVA02-CLIP-bigE-14-plus	79.20	84.42	91.09	34.05	54.10	94.62	79.13	95.80	72.46	94.17	74.09	69.61	76.89
EVA02-CLIP-bigE-14	76.72	85.04	90.81	33.73	48.06	94.64	79.93	95.69	73.51	93.98	76.04	71.12	76.61
google/siglip-so400m-patch14-384	62.51	85.65	81.51	33.81	60.25	95.46	80.89	96.54	69.57	94.63	75.26	76.85	76.08
laion/CLIP-ViT-bigG-14-laion2B-39B-b160k	74.39	84.27	85.35	32.39	49.56	92.78	77.65	95.28	69.76	94.02	73.54	68.62	74.80
laion/CLIP-ViT-H-14-DataComp.XL-s13B-b90K	75.63	86.64	85.54	29.92	47.40	94.24	77.41	94.96	71.22	92.81	73.89	63.21	74.41
google/siglip-large-patch16-384	63.53	84.39	79.23	23.05	52.84	94.95	79.93	96.78	68.65	94.19	73.22	69.76	73.38
laion/CLIP-ViT-H-14-laion2B-s32B-b79K	71.75	82.96	83.57	28.86	42.51	92.19	76.11	94.55	70.65	93.02	74.65	67.05	73.16
laion/CLIP-ViT-g-14-laion2B-s34B-b88K	69.10	83.19	77.93	29.52	44.43	91.91	76.44	93.95	71.21	93.76	73.28	70.00	72.89
google/siglip-large-patch16-256	57.54	84.42	79.92	19.92	52.45	93.18	78.77	96.16	67.75	93.61	72.87	68.75	72.11
EVA02-CLIP-L-14	58.40	83.09	90.07	29.23	35.67	92.91	78.06	93.95	69.30	90.03	73.98	69.18	71.99
laion/CLIP-ViT-L-14-laion2B-s32B-b82K	64.34	83.76	82.17	25.03	35.25	90.41	73.23	93.21	71.00	92.12	73.57	67.20	70.94
google/siglip-base-patch16-512	54.02	84.11	69.72	18.03	45.72	91.89	78.13	94.96	62.97	92.51	71.29	64.68	69.00
google/siglip-base-patch16-384	53.43	84.24	70.00	17.31	45.09	91.27	77.33	95.01	62.83	92.38	70.74	64.14	68.65
laion/CLIP-ViT-B-16-DataComp.XL-s13B-b90K	65.91	84.80	81.21	20.52	29.85	90.08	72.23	92.80	65.08	88.30	70.57	54.78	68.01
google/siglip-base-patch16-256	48.95	83.74	71.91	15.08	44.76	89.16	75.64	94.25	61.19	91.01	70.02	61.10	67.24
openai/clip-vit-large-patch14	53.16	81.99	75.00	29.08	32.55	92.34	71.21	93.40	67.67	76.57	64.40	66.66	67.00
google/siglip-base-patch16-224	48.30	83.66	70.15	14.33	43.86	89.19	75.12	94.17	62.27	90.83	69.85	61.90	66.97
EVA02-CLIP-B-16	52.08	83.83	87.01	20.45	24.81	88.36	73.19	92.26	63.11	78.82	70.32	64.66	66.58
google/siglip-base-patch16-256-multilingual	41.06	84.55	71.01	15.20	32.34	89.48	74.36	93.79	58.48	89.13	69.46	62.87	65.14
laion/CLIP-ViT-B-32-DataComp.XL-s13B-b90K	58.40	84.47	79.64	15.99	24.39	83.45	67.87	90.43	60.90	85.64	66.97	49.73	63.99
laion/CLIP-ViT-B-32-laion2B-s34B-b79K	51.81	82.38	74.64	15.27	23.85	81.67	65.15	90.62	63.32	85.59	68.23	53.95	63.04
nomic-ai/nomic-embed-vision-v1.5	51.59	72.37	81.79	15.17	28.08	85.99	69.82	91.09	57.62	87.44	64.42	50.51	62.99
openai/clip-vit-base-patch16	44.03	79.04	65.97	21.29	24.90	87.67	63.99	89.04	60.54	63.54	60.56	62.19	60.23
openai/clip-vit-base-patch32	40.57	78.55	61.65	15.96	18.87	82.71	58.84	87.49	53.40	58.61	61.06	58.15	56.32
jinaai/jina-clip-v1	32.36	80.87	71.78	12.19	11.52	76.70	58.70	80.84	55.63	68.09	65.44	50.67	55.40
Salesforce/blip-itm-large-flickr	20.42	81.84	71.15	11.67	5.85	76.01	60.95	77.92	57.14	71.16	70.40	51.54	54.67
kakaobrain/align-base	25.23	80.57	51.46	16.21	11.34	80.98	62.70	84.30	48.89	72.95	70.48	45.45	54.21
Salesforce/blip-itm-large-coco	20.10	82.82	73.83	10.49	6.99	76.05	60.94	76.64	57.03	69.71	67.14	47.49	54.10
voyage-multimodal-3	13.61	78.17	71.92	11.07	11.67	74.42	60.91	70.51	61.73	49.40	68.64	61.47	52.79
BAAI/hge-visualized-base	25.72	77.70	76.85	8.63	10.53	63.73	50.35	56.23	59.24	43.10	62.01	44.84	48.24
Salesforce/blip-itm-base-coco	12.91	79.90	52.39	6.82	5.55	68.03	53.47	69.09	50.40	66.29	64.76	44.23	47.82
blip2-pretrain	3.30	73.06	80.75	9.25	3.18	75.22	39.04	23.68	55.57	62.89	64.46	50.51	45.08
BAAI/hge-visualized-m3	18.64	73.13	68.25	9.18	11.88	55.13	38.48	49.74	52.06	56.35	56.30	43.85	44.42
royokong/e5-v	7.29	80.34	60.63	7.21	7.80	60.69	48.66	32.60	57.95	26.08	64.79	60.48	42.88
Salesforce/blip-itm-base-flickr	9.99	69.31	47.22	6.00	5.94	59.57	48.28	62.20	45.46	54.12	61.11	44.83	42.84
TIGER-Lab/VLM2Vec-LoRA	9.56	79.08	50.29	7.99	7.08	57.10	50.38	48.02	52.71	22.37	60.51	53.92	41.59
TIGER-Lab/VLM2Vec-Full	9.62	79.24	50.26	7.91	6.99	57.16	50.41	48.24	52.59	22.26	60.37	53.85	41.58
blip2-finetune-coco	2.70	72.65	73.58	4.52	5.13	61.85	44.20	29.93	52.87	29.71	60.32	46.69	40.35

Table 19. Zero-shot Classification for fine-grained tasks.

model name	AROCocoOrde	AROFlickrOrder	AROVISualAttribution	AROVISualRelation	SugarCrep	Winoground	ImageCoDE	Avg.
royokong/e5-v	41.30	36.12	74.54	59.20	88.02	11.75	13.21	46.30
EVA02-CLIP-bigE-14-plus	45.05	52.82	60.52	51.40	86.50	10.75	12.69	45.67
openai/clip-vit-base-patch16	48.18	56.12	61.84	53.64	76.90	7.25	12.16	45.16
jinaai/jina-clip-v1	52.83	49.02	61.70	51.36	81.81	6.00	13.03	45.11
openai/clip-vit-base-patch32	46.37	56.60	61.40	51.76	76.61	9.00	13.21	44.99
openai/clip-vit-large-patch14	45.66	54.90	61.63	53.27	76.71	8.25	12.86	44.75
EVA02-CLIP-B-16	40.54	51.74	61.79	53.92	81.44	9.00	13.47	44.56
EVA02-CLIP-L-14	39.41	47.00	61.98	53.31	84.38	10.25	12.64	44.14
voyage-multimodal-3	40.90	37.18	65.88	51.94	89.62	6.25	12.81	43.51
Salesforce/blip-itm-base-flickr	29.56	32.16	76.30	53.72	86.89	7.75	12.77	42.74
laion/CLIP-ViT-bigG-14-laion2B-39B-b160k	33.20	38.84	61.11	51.80	86.47	12.25	12.81	42.36
EVA02-CLIP-bigE-14	33.23	39.06	62.01	49.40	85.91	12.50	14.29	42.35
laion/CLIP-ViT-H-14-laion2B-s32B-b79K	33.01	39.42	62.19	50.17	85.53	10.50	13.38	42.03
laion/CLIP-ViT-g-14-laion2B-s34B-b88K	32.92	37.44	62.89	50.90	85.22	9.00	15.20	41.94
Salesforce/blip-itm-base-coco	21.63	26.02	76.91	52.06	91.35	12.75	12.73	41.92
laion/CLIP-ViT-L-14-laion2B-s32B-b82K	31.07	38.70	58.94	50.97	84.22	8.75	13.25	40.84
google/siglip-large-patch16-256	32.63	37.76	57.97	45.82	84.76	13.00	13.29	40.75
laion/CLIP-ViT-B-32-laion2B-s34B-b79K	33.28	40.46	58.05	50.39	81.36	7.50	13.51	40.65
Salesforce/blip-itm-large-coco	18.27	20.56	76.52	52.28	91.07	10.50	14.07	40.47
google/siglip-so400m-patch14-384	30.08	34.92	59.67	46.56	85.93	12.25	13.08	40.36
kakaobrain/align-base	25.26	36.08	66.95	51.09	81.20	8.25	13.21	40.29
google/siglip-base-patch16-224	31.67	38.40	54.04	46.24	83.76	10.25	14.51	39.84
laion/CLIP-ViT-B-32-DataComp.XL-s13B-b90K	33.17	38.10	57.35	49.52	79.87	8.00	12.21	39.75
google/siglip-large-patch16-384	29.82	33.34	57.80	45.25	85.18	13.00	13.47	39.69
google/siglip-base-patch16-256	29.97	38.62	54.10	45.84	83.56	11.25	13.34	39.52
Salesforce/blip-itm-large-flickr	16.59	15.04	75.34	53.44	88.98	13.50	12.86	39.39
laion/CLIP-ViT-L-14-DataComp.XL-s13B-b90K	28.70	34.56	59.18	47.73	83.86	7.50	12.25	39.11
laion/CLIP-ViT-B-16-DataComp.XL-s13B-b90K	30.16	35.92	56.18	46.44	82.17	7.50	12.16	38.65
google/siglip-base-patch16-384	27.34	34.18	54.38	45.99	84.00	11.00	12.90	38.54
google/siglip-base-patch16-256-multilingual	27.60	36.00	53.85	45.19	82.80	9.00	12.51	38.14
google/siglip-base-patch16-512	22.99	32.14	54.13	46.09	84.36	9.25	13.60	37.51
nomic-ai/nomic-embed-vision-v1.5	29.59	37.20	55.10	46.36	75.04	5.75	11.95	37.28
TIGER-Lab/VLM2Vec-Full	22.27	22.20	62.39	55.72	67.00	5.00	13.47	35.43
TIGER-Lab/VLM2Vec-LoRA	20.33	20.36	61.41	55.02	65.98	5.75	13.42	34.61
blip2-finetune-coco	6.09	6.38	68.32	51.55	84.30	8.25	13.73	34.09
BAAI/hge-visualized-m3	22.87	8.74	58.43	45.89	75.66	2.75	11.55	32.27
BAAI/hge-visualized-base	16.44	6.16	53.89	46.56	83.60	4.75	12.12	31.93
blip2-pretrain	4.21	5.12	67.21	49.82	72.49	6.00	11.90	30.96

Table 20. Compositionality Evaluation Results.

[illegible]

Model Name	Clus. (5)	Compo. (7)	Vis. STS (en) (7)	Doc. (10)	Cls. Coarse (8)	Cls. Fine (13)	ZS. Coarse (11)	ZS. Fine (12)	Vision Centric (6)	Retr. (41)	Multiling. Retrieval (3 (55))	Vis. STS (cross&multi) (2 (19))	Mean (Eng.) (125)	Mean (Multiling.) (130)
voyage-multimodal-3	82.41	43.51	81.84	71.13	78.83	66.12	64.19	52.79	48.56	38.49	58.87	70.42	62.79	63.10
google/siglip-so400m-patch14-384	82.11	40.36	68.02	56.38	83.94	84.36	65.12	76.08	46.25	39.01	40.19	41.39	64.16	60.27
google/siglip-large-patch16-384	79.94	39.69	69.51	53.32	83.96	82.89	62.14	73.38	45.36	38.48	51.11	39.76	62.87	59.96
roykong/e5-v	70.05	46.30	79.30	62.69	81.34	68.62	57.80	42.88	51.90	33.71	66.57	46.25	59.46	58.95
google/siglip-large-patch16-256	82.13	40.75	67.43	39.37	83.30	81.20	62.98	72.11	44.87	37.45	49.84	38.11	61.16	58.29
google/siglip-base-patch16-512	74.65	37.51	67.69	52.06	81.24	79.77	58.66	69.00	53.20	37.05	43.21	38.12	61.08	57.68
laion/CLIP-ViT-bigG-14-laion2B-39B-b160k	85.59	42.36	70.93	43.19	84.01	82.79	63.44	74.80	43.16	39.95	28.01	34.54	63.02	57.73
google/siglip-base-patch16-384	76.27	38.54	67.05	45.00	81.09	79.37	59.14	68.65	52.80	36.55	42.55	37.54	60.45	57.05
laion/CLIP-ViT-L-14-DataComp.XL-s13B-b90K	86.44	39.11	69.87	38.64	81.65	81.41	61.83	74.41	52.33	36.51	23.77	35.78	62.22	56.81
EVA02-CLIP-bigE-14-plus	92.38	45.67	71.99	32.27	85.42	85.84	64.14	76.89	39.43	38.03	27.82	28.21	63.21	57.34
google/siglip-base-patch16-256-multilingual	74.56	38.14	65.46	26.35	81.06	76.63	56.83	65.14	51.25	34.40	59.21	40.27	56.98	55.77
laion/CLIP-ViT-H-14-laion2B-s32B-b79K	83.86	42.03	65.50	40.41	83.25	81.26	61.27	73.16	45.80	38.30	25.54	33.85	61.48	56.19
laion/CLIP-ViT-g-14-laion2B-s34B-b88K	82.74	41.94	69.14	37.63	83.71	81.48	62.39	72.89	44.16	38.36	25.92	31.70	61.45	56.01
EVA02-CLIP-bigE-14	89.42	42.35	68.80	31.62	84.10	84.66	61.40	76.61	43.57	37.03	25.54	28.29	61.95	56.11
google/siglip-base-patch16-256	75.24	39.52	66.16	31.66	81.14	77.82	58.54	67.24	52.18	35.47	41.26	34.44	58.49	55.05
google/siglip-base-patch16-224	74.50	39.84	64.25	26.16	80.92	77.38	57.92	66.97	51.06	35.10	41.23	33.54	57.41	54.07
laion/CLIP-ViT-L-14-laion2B-s32B-b82K	83.50	40.84	65.82	36.26	82.80	79.45	60.23	70.94	45.85	36.64	23.02	26.02	60.23	54.28
openai/clip-vit-large-patch14	76.41	44.75	64.45	37.97	81.00	78.76	56.65	67.00	44.10	32.13	20.24	35.12	58.32	53.22
laion/CLIP-ViT-B-16-DataComp.XL-s13B-b90K	81.73	38.65	68.47	27.02	80.53	76.47	56.82	68.01	54.34	33.42	21.57	28.49	58.55	52.96
TIGER-Lab/VLM2Vec-LoRA	72.64	34.61	72.59	49.71	75.14	53.17	51.38	41.59	62.02	27.06	34.92	42.21	53.99	51.42
TIGER-Lab/VLM2Vec-Full	70.72	35.43	72.64	49.80	75.16	53.15	51.51	41.58	62.12	27.00	34.96	42.19	53.91	51.35
EVA02-CLIP-L-14	88.27	44.14	63.04	22.08	74.35	65.60	60.13	71.99	39.37	33.87	23.43	22.48	56.28	50.73
openai/clip-vit-base-patch16	69.47	45.16	66.06	25.50	76.75	72.70	52.13	60.23	46.92	29.16	17.66	29.80	54.41	49.29
Salesforce/blip-itm-large-coco	77.53	40.47	62.88	17.70	76.29	67.49	53.70	54.10	51.10	31.82	18.53	33.69	53.31	48.77
laion/CLIP-ViT-B-32-laion2B-s34B-b79K	77.99	40.65	59.53	16.86	79.82	71.94	54.60	63.04	42.97	32.14	20.13	26.16	53.95	48.82
jinaai/jina-clip-v1	69.95	45.11	62.62	17.64	73.51	66.31	52.15	55.40	45.38	32.02	18.09	34.59	52.01	47.73
Salesforce/blip-itm-base-coco	70.59	41.92	66.64	18.01	74.17	62.95	49.38	47.82	47.26	30.26	16.81	38.59	50.90	47.03
laion/CLIP-ViT-B-32-DataComp.XL-s13B-b90K	77.37	39.75	56.52	12.43	79.55	72.44	53.03	63.99	46.05	30.85	20.13	23.63	53.20	47.98
Salesforce/blip-itm-large-flickr	76.43	39.39	60.16	18.47	74.27	66.75	51.27	54.67	47.01	30.76	18.12	30.50	51.92	47.32
kakaobrain/align-base	59.59	40.29	62.74	31.44	70.87	69.80	46.84	54.21	45.69	29.87	22.36	27.29	51.13	46.75
Salesforce/blip-itm-base-flickr	67.27	42.74	64.25	14.96	71.52	60.99	45.56	42.84	52.35	27.50	13.44	38.03	49.00	45.12
BAAI/bge-visualized-m3	73.57	32.27	64.16	12.38	72.47	62.83	48.74	44.42	43.85	27.64	46.35	23.46	48.23	46.01
BAAI/bge-visualized-base	76.19	31.93	61.58	10.34	73.99	68.30	49.01	48.24	52.43	27.07	12.25	24.75	49.91	44.67
openai/clip-vit-base-patch32	67.90	44.99	54.39	13.23	74.36	67.67	51.28	56.32	42.73	26.53	16.73	21.80	49.94	44.83
EVA02-CLIP-B-16	82.55	44.56	43.11	9.42	69.96	48.16	52.82	66.58	45.34	29.59	20.12	22.4	49.21	44.55
blip2-pretrain	74.01	30.96	42.75	12.30	79.61	67.49	52.96	45.08	53.14	25.30	13.86	21.77	48.36	43.27
blip2-finetune-coco	67.84	34.09	45.72	15.59	80.25	68.41	52.58	40.35	52.72	23.55	13.05	22.87	48.11	43.08
nomic-ai/nomic-embed-vision-v1.5	83.64	37.28	29.29	11.92	66.49	67.35	52.82	62.99	46.72	29.13	14.48	14.10	48.76	43.02

Table 22. **MIEB overall per-task category results, grouped by categories assessed.** We provide averages of both English-only tasks and tasks of all languages, and the table is ranked by average on all tasks, including multilingual ones.

Model Name	Type	Model Size	Modalities
kakaobrain/align-base [45]	Encoder	176	image, text
blip2-pretrain [59]	Encoder	1173	image, text
blip2-finetune-coco [59]	Encoder	1173	image, text
Salesforce/blip-vqa-base [58]	Encoder	247	image, text
Salesforce/blip-vqa-capfilt-large [58]	Encoder	247	image, text
Salesforce/blip-itm-base-coco [58]	Encoder	247	image, text
Salesforce/blip-itm-large-coco [58]	Encoder	470	image, text
Salesforce/blip-itm-base-flickr [58]	Encoder	247	image, text
Salesforce/blip-itm-large-flickr [58]	Encoder	470	image, text
openai/clip-vit-large-patch14 [84]	Encoder	428	image, text
openai/clip-vit-base-patch32 [84]	Encoder	151	image, text
openai/clip-vit-base-patch16 [84]	Encoder	151	image, text
facebook/dinov2-small [80]	Encoder	22	image
facebook/dinov2-base [80]	Encoder	86	image
facebook/dinov2-large [80]	Encoder	304	image
facebook/dinov2-giant [80]	Encoder	1140	image
roykong/e5-v [46]	MLLM	8360	image, text
QuanSun/EVA02-CLIP-B-16 [91]	Encoder	149	image, text
QuanSun/EVA02-CLIP-L-14 [91]	Encoder	428	image, text
QuanSun/EVA02-CLIP-bigE-14 [91]	Encoder	4700	image, text
QuanSun/EVA02-CLIP-bigE-14-plus [91]	Encoder	5000	image, text
jinaai/jina-clip-v1 [52]	Encoder	223	image, text
nyu-visionx/moco-v3-vit-b [13]	Encoder	86	image
nyu-visionx/moco-v3-vit-l [13]	Encoder	304	image
nomie-ai/nomic-embed-vision-v1.5 [1, 78]	Encoder	92	image, text
laion/CLIP-ViT-L-14-DataComp.XL-s13B-b90K [31]	Encoder	428	image, text
laion/CLIP-ViT-B-32-DataComp.XL-s13B-b90K [31]	Encoder	151	image, text
laion/CLIP-ViT-B-16-DataComp.XL-s13B-b90K [31]	Encoder	150	image, text
laion/CLIP-ViT-bigG-14-laion2B-39B-b160k [16]	Encoder	2540	image, text
laion/CLIP-ViT-g-14-laion2B-s34B-b88K [16]	Encoder	1367	image, text
laion/CLIP-ViT-H-14-laion2B-s32B-b79K [16]	Encoder	986	image, text
laion/CLIP-ViT-L-14-laion2B-s32B-b82K [16]	Encoder	428	image, text
laion/CLIP-ViT-B-32-laion2B-s34B-b79K [16]	Encoder	151	image, text
Alibaba-NLP/gme-Qwen2-VL-2B-Instruct [117]	Encoder	2210	image, text
Alibaba-NLP/gme-Qwen2-VL-7B-Instruct [117]	Encoder	8290	image, text
google/siglip-so400m-patch14-224 [116]	Encoder	877	image, text
google/siglip-so400m-patch14-384 [116]	Encoder	878	image, text
google/siglip-so400m-patch16-256-i18n [116]	Encoder	1130	image, text
google/siglip-base-patch16-256-multilingual [116]	Encoder	371	image, text
google/siglip-base-patch16-256 [116]	Encoder	203	image, text
google/siglip-base-patch16-512 [116]	Encoder	204	image, text
google/siglip-base-patch16-384 [116]	Encoder	203	image, text
google/siglip-base-patch16-224 [116]	Encoder	203	image, text
google/siglip-large-patch16-256 [116]	Encoder	652	image, text
google/siglip-large-patch16-384 [116]	Encoder	652	image, text
BAAI/bge-visualized-base [118]	Encoder	196	image, text
BAAI/bge-visualized-m3 [118]	Encoder	873	image, text
TIGER-Lab/VLM2Vec-LoRA [47]	MLLM	4150	image, text
TIGER-Lab/VLM2Vec-Full [47]	MLLM	4150	image, text
voyageai/voyage-multimodal-3 [2]	MLLM	N/A	image, text

Table 23. **List of all models evaluated in MIEB.** Model sizes are in millions of parameters.

E. Task Category Examples

E.1. Retrieval

Figure 5 provides an example of retrieval task.

Query

An airport filled with planes sitting on tar-macs.

Corpus







Answer



Figure 5. T2I Retrieval example from *MSCOCOT2IRetrieval* task.

E.2. Vision-centric Tasks

Figure 6 provides an example of vision-centric task.

E.3. Compositionality

Figure 7 provides an example of compositionality task.

Query

How many curtains are in the image?



Choices

1, 3, 2, 0, 4

Answer

2

Figure 6. Vision-centric example from *CVBench*.

E.4. Visual STS

Figure 8 provides an example of Visual STS task.

E.5. Document Understanding

Given a text query and a corpus of image documents (documents can include figures, dense PDFs with texts, illustrations, etc.). We expect a retrieval model to be able to return the most relevant document to the query based on their embeddings. See Figure 9 for an example.

E.6. Zero-shot classification

Figure 10 provides an example of zero-shot classification task.

E.7. Linear Probing (Classification)

Figure 11 provides an example of linear probing task.

E.8. Clustering

Figure 12 provides an example of clustering task.

Query



Choices

- a table and chairs with wooden kitchen tools on top
- a kitchen and chairs with wooden table top on tools
- and table with chairs on wooden kitchen tools a top
- table a and chairs with wooden kitchen tools on top
- top chairs with wooden a table and kitchen tools on

Answer

a table and chairs with wooden kitchen tools on top

Figure 7. Compositionality example from *ARO-COCO-order*.

Rendered texts

A person is on a baseball team.

Eine Person spielt in einem Team Basketball.

Score

2.4

Figure 8. Visual STS example from *rendered_sts17* multilingual.

Query

What is the chemical formula for the ferroelectric material Lead Zirconium Titanate (PZT)?

Corpus

management but often struggle to implement risk interventions and discuss how risk analysis can be used to make better decisions. Their responses indicate that this is sometimes driven by poorly written but well-meaning governmental regulations.

2. Best practice enterprise risk management is a process, evolving iteratively, rather than a one-time project. Health companies are at various stages on this continuum. Practices range from doing nothing beyond solid risk management to fully implemented plans that collect data used to make decisions. For large, fully functioning risk culture that allows challenges of data coming from the top of the organizational structure. Better practices are often driven by company size. Larger firms have more resources and other processes are more likely to be effectively implemented (e.g., a company with robust systems capabilities is more likely to practice strong ERM).

3. Most health insurers that have implemented best practices ERM have done so internally with minimal external help.

4. Consulting, in general, are not encouraging health insurers to develop and implement an ERM process. This seems to be based on a typical health practitioner's belief that it will be thoroughly focused on pricing and financial reporting. While a few consultant respondents shared how ERM has added value for their clients, most did not understand the concept and how it could improve the results of their clients.

A recommendation for future work includes a series of articles in Health Watch discussing ERM as it applies to practitioners in the health insurance field. One such article has already been written. In terms of future efforts, research that explores correlations between risks, quantification of regulatory risk, and asset liability management projects to better facilitate assets backing health liabilities and surplus would be valuable.

Background

This research report was sponsored by the Health Section of the Society of Actuaries. Its goal is to identify current and best ERM practices for health organizations, along with a literature search, and suggest future areas for articles or additional research. A survey was developed and made available to targeted and self-selected health insurance experts. A total of 22 responses were received. The survey was not meant to be a random sample, but rather to elicit comments that served as the basis for follow-up discussions. The survey was categorized as follows:

Ferroelectrics

Lead Zirconium Titanate

- PZT
- $\text{Pb}(\text{Zr}_{1-x}\text{Ti}_x)\text{O}_3$
- 1952 Shirane, Suzuki: $\text{Pb}(\text{Zr,Ti})\text{O}_3$ solid solutions
- 1955 Jaffe, Cook, Berlincourt, Gerson: Complete Study of PZT formulations
- Curie temperature 170-360

Medical Care Development, Inc.

Maine eConsult Network

915095274265

Project Focus Areas: Increase Health System Efficiency

Other Focus Areas: Integrated Health Services
Reimbursement for Health Services
Telehealth
Workforce Development

Network Statement

Maine covers a vast geographic area that includes rugged coastline and dense forest. The nature of this geography, though full of natural beauty, brings inherent challenges for Maine's rural communities and healthcare providers. Isolation, poverty, and a poor economic outlook have been associated with poor access to medical, mental, and dental health care, as well as high levels of morbidity and mortality from chronic disease. Maine also has one of the oldest populations in the nation and a high percentage of dual Medicare and Medicaid eligibility. The broad of health needs among this population, combined with the limitations of the current health care delivery system (provider shortages, long specialty wait times, etc.) creates a critical need for innovative approaches to improve and streamline healthcare delivery across the state.

The Maine eConsult Network (MeCN) was initiated in 2020 to address these challenges in collaboration with the Maine Rural Health Collaborative (MRHC) and Penobscot Community Health Care (PCHC). The MeCN is working to establish a system of virtual services to facilitate communications between rural primary care providers (PCPs) and distant specialty providers. A PCP in a rural community can initiate the consultation and request recommendations from a specialist by sending patient specific information and questions to a secure shared electronic platform. A specialist from a selected group or panel of providers is then assigned and responds typically within 24-48 hours with recommendations for the PCP to consider in the care and treatment of the patient or advise that the PCP should refer the patient to a specialist. The specialist may also request additional, clarifying information from the PCP. Through implementation of this statewide eConsult Network, rural, medically underserved residents – and their providers – will benefit from extended and timely access to the specialty care they need and expect.

Network Development

Over the past year, the Maine eConsult Network (MeCN) has worked toward network formalization through multiple activities. During the first few months of the grant period, local agent of MRHC, Medical Care Development, Inc. (MCD), confirmed network staffing and roles, including a Network Director and Network Coordinator, and grant management systems, consisting of project and budget management. Monthly meeting structure was established with Network Members and the first monthly meeting of the MeCN was held in September 2020. Over the first six months, the MeCN worked to formalize the network and grant management structure including drafting a Charter with Vision, Mission, and Values statements for the network, the structure and function of the Leadership Team, and Definitions and Roles in MeCN. Historically, MCD, in its role as convener of the MRHC and host of the HRSA-funded Northeast Telehealth Resource Center (NETHC; www.NETHC.org), has worked independently with both MRHC Members, the Maine Rural Health Collaborative.

Relevant document

Ferroelectrics

Lead Zirconium Titanate

- PZT
- $\text{Pb}(\text{Zr}_{1-x}\text{Ti}_x)\text{O}_3$
- 1952 Shirane, Suzuki: $\text{Pb}(\text{Zr,Ti})\text{O}_3$ solid solutions
- 1955 Jaffe, Cook, Berlincourt, Gerson: Complete Study of PZT formulations
- Curie temperature 170-360

Image



Prompts

a photo of a Cooper's Hawk, a type of bird.
a photo of a Golden Eagle, a type of bird.
a photo of a Red-tailed Hawk, a type of bird.
a photo of a White-tailed Hawk, a type of bird.
a photo of a Rough-legged Hawk, a type of bird.

Answer

a photo of a Golden Eagle, a type of bird.

Figure 10. Zero-shot Classification example from *Birdsnap*.

Figure 9. Example of a Document Understanding task from *Vidore Benchmark*, dataset *SyntheticDOCQA healthcare industry BEIR*.

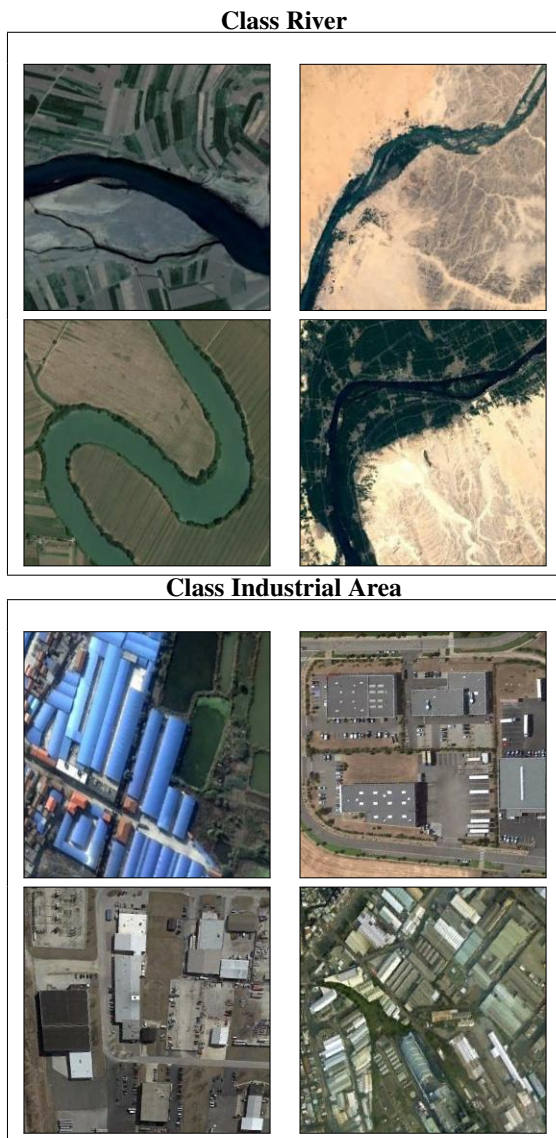


Figure 11. **Linear Probing (Classification)** example from *RE-SISC45*.



Figure 12. **Clustering** example from *ImageNet-10*.