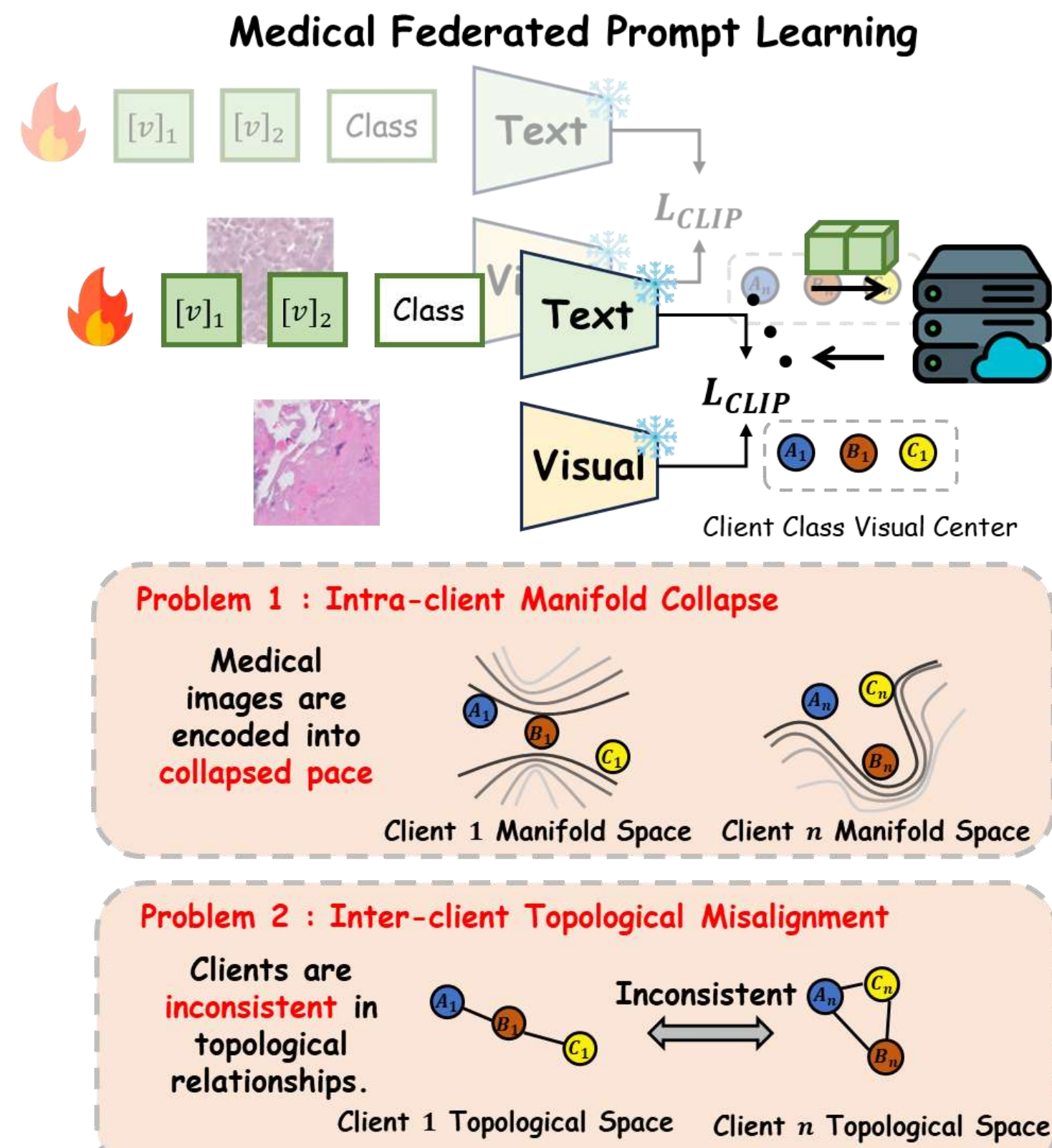
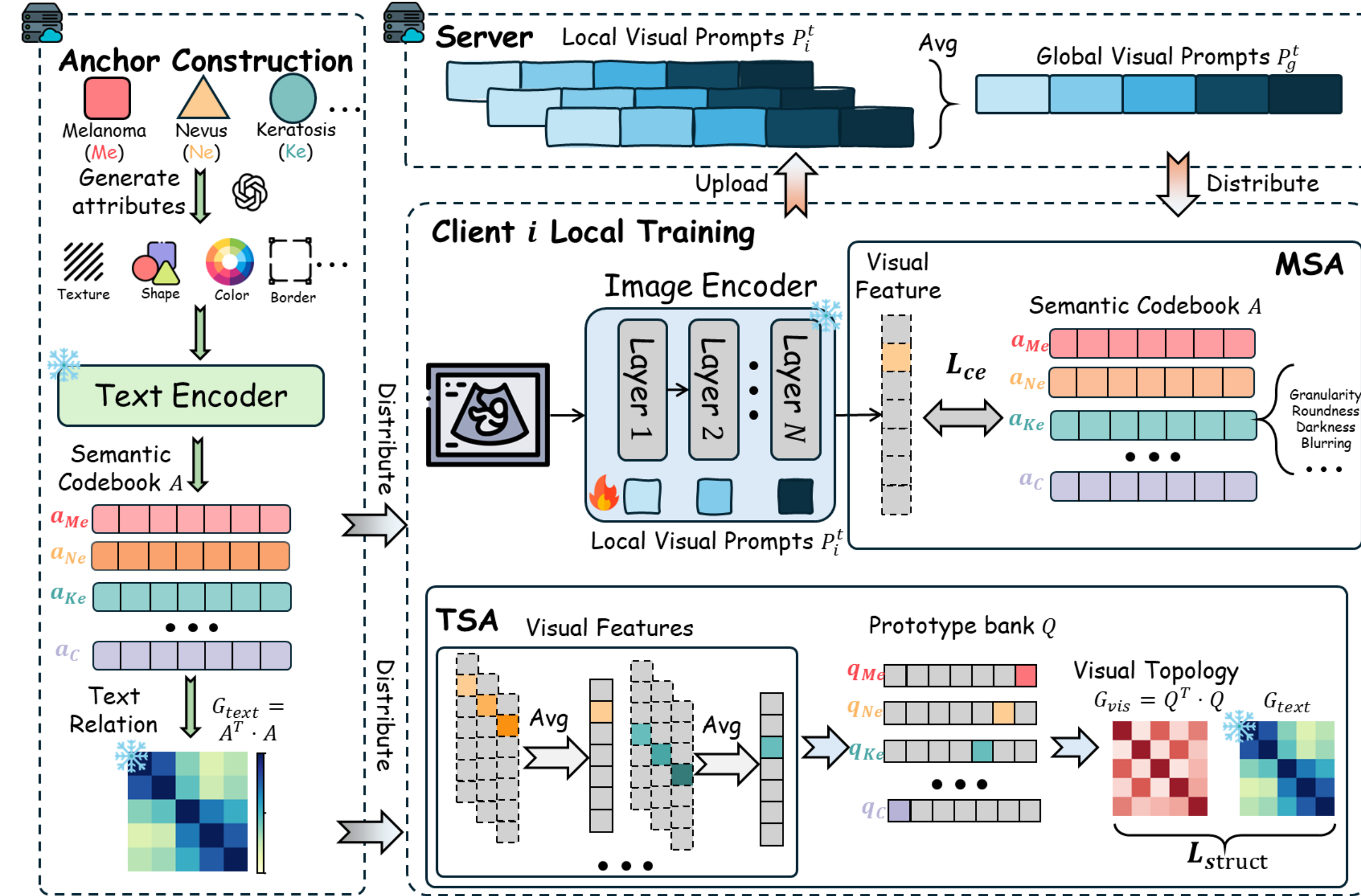


1. Introduction



2. Method: FedMAP



3. Main Results

Methods	MSK		VI-MX		VI-DL		RS		VI-HD		BCN		Avg	
	Acc	F1	Acc	F1	Acc	F1	Acc	F1	Acc	F1	Acc	F1	Acc	F1
Zero-Shot CLIP [ICML 2021]	16.51	4.70	0.38	0.70	6.10	4.00	11.73	3.30	0.00	0.00	0.00	0.00	5.79	2.12
PromptFL [TMC 2023]	58.75±0.72	35.23±1.17	94.10±0.27	41.90±1.23	67.17±0.21	42.90±0.44	50.96±0.25	28.17±0.40	46.94±2.12	40.13±2.85	72.72±5.20	51.07±18.97	65.11±0.48	39.90±2.82
PromptFL+Prox [PMLR 2020]	57.94±0.59	33.67±0.97	93.72±0.32	40.93±4.32	67.51±0.31	43.40±1.04	50.29±0.13	27.43±0.58	47.36±1.76	39.43±2.55	77.65±1.31	52.07±9.98	65.75±0.47	39.49±1.02
FedKgCoOP [CVPR 2023]	53.15±0.16	25.20±0.20	93.26±0.19	25.57±2.40	62.00±1.38	28.10±3.47	44.62±1.05	21.30±1.82	42.89±0.35	33.13±1.18	80.68±3.01	33.07±1.20	62.77±0.14	27.73±1.30
FedCLIP [ICLR 2023]	58.56±0.28	32.33±0.76	93.47±0.19	27.33±1.67	66.37±1.03	37.07±1.97	52.06±0.84	27.77±0.85	44.51±2.11	37.73±5.05	81.82±1.14	38.03±0.59	66.13±0.38	33.38±1.28
FedAPT [AAAI 2024]	58.71±1.70	37.20±2.35	94.06±0.33	39.30±2.59	67.51±0.31	43.00±0.66	51.40±1.14	28.20±1.14	45.33±3.07	35.70±4.90	72.73±6.01	56.07±3.88	64.95±0.40	39.91±0.58
FOCoOP [ICML 2025]	44.35±5.30	17.53±5.01	72.90±19.48	23.55±2.47	53.67±4.49	19.90±7.01	35.84±3.34	15.33±4.60	41.06±3.36	32.67±9.13	61.36±11.86	24.73±2.03	51.53±6.50	22.13±4.63
FedMVP [ICCV 2025]	52.96±3.35	24.90±2.10	93.38±0.98	23.47±5.04	63.54±1.42	32.33±9.69	43.95±2.92	19.70±2.41	39.23±1.76	22.50±0.44	78.79±2.37	33.33±1.12	61.98±0.51	26.04±2.26
FedMAP (Ours)	71.04±3.28	58.53±5.09	97.60±0.43	72.10±3.00	79.52±2.20	68.17±4.12	60.31±0.69	44.20±4.52	50.20±5.53	38.57±6.01	81.07±2.86	75.23±2.84	73.29±1.29	59.47±1.98

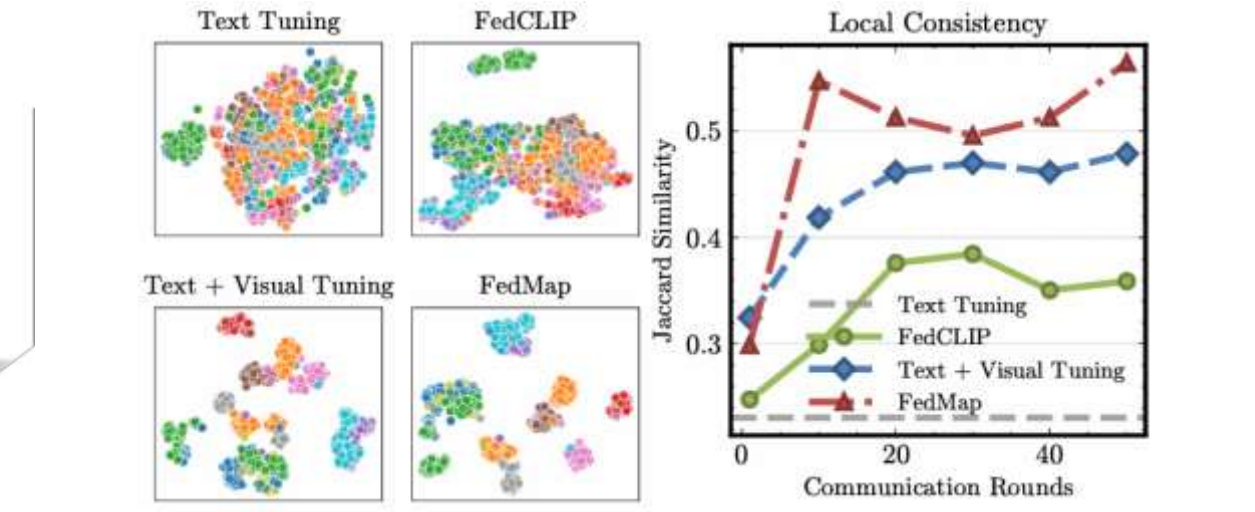
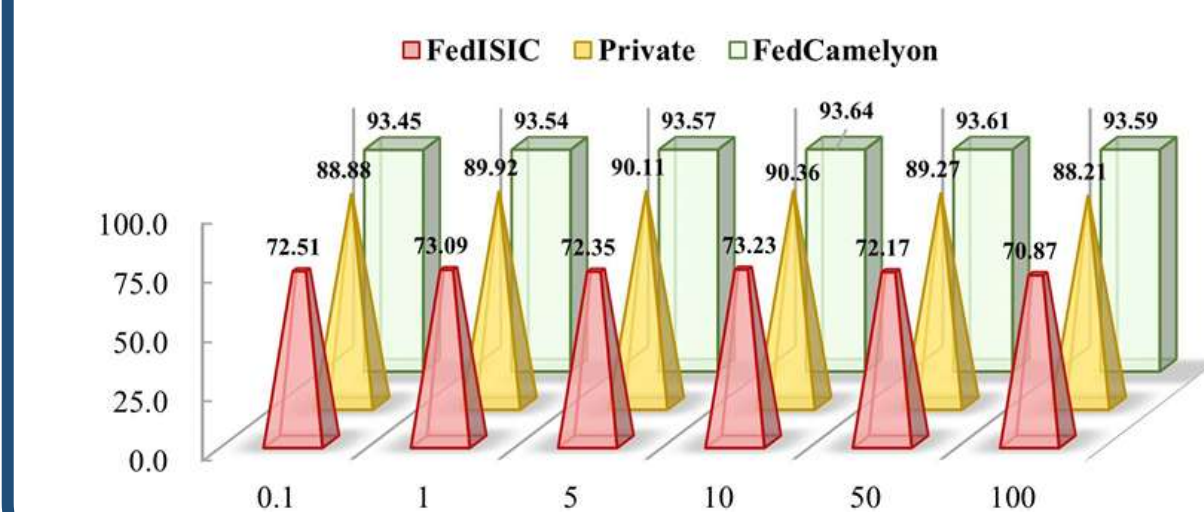
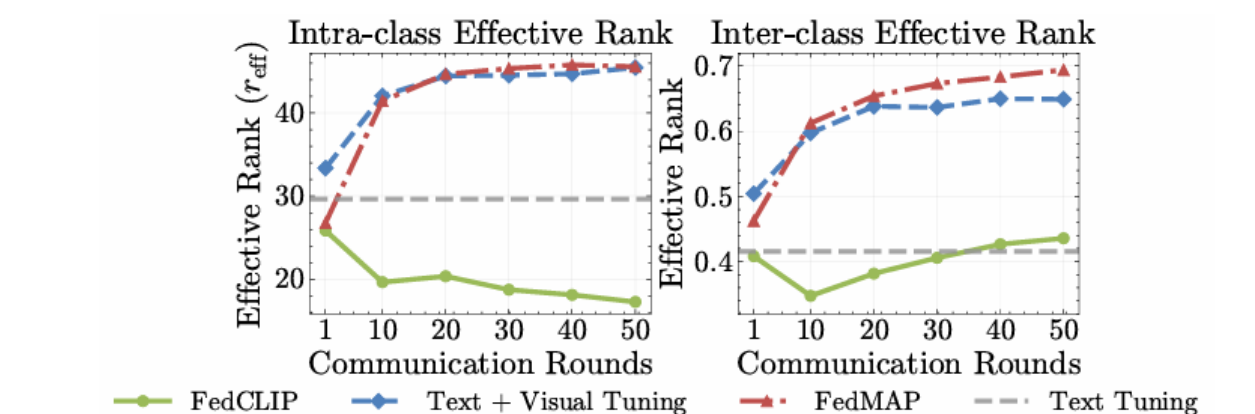
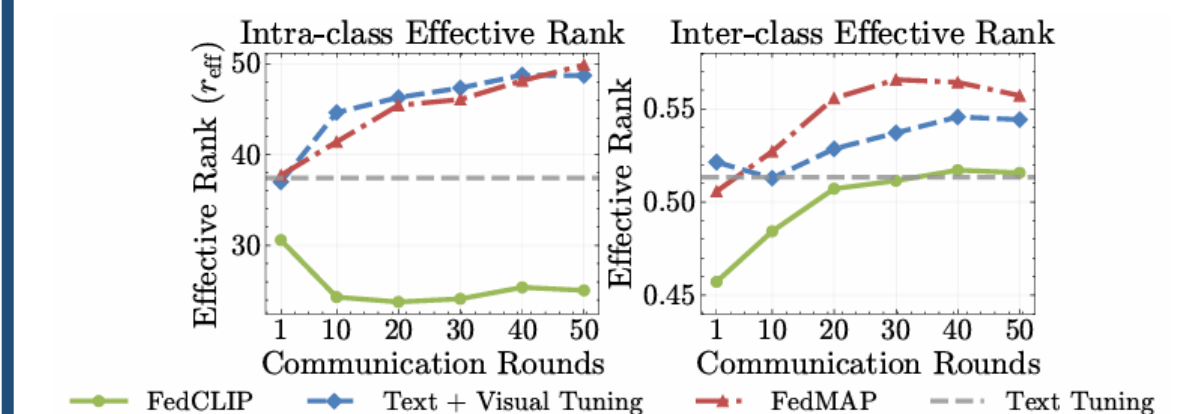
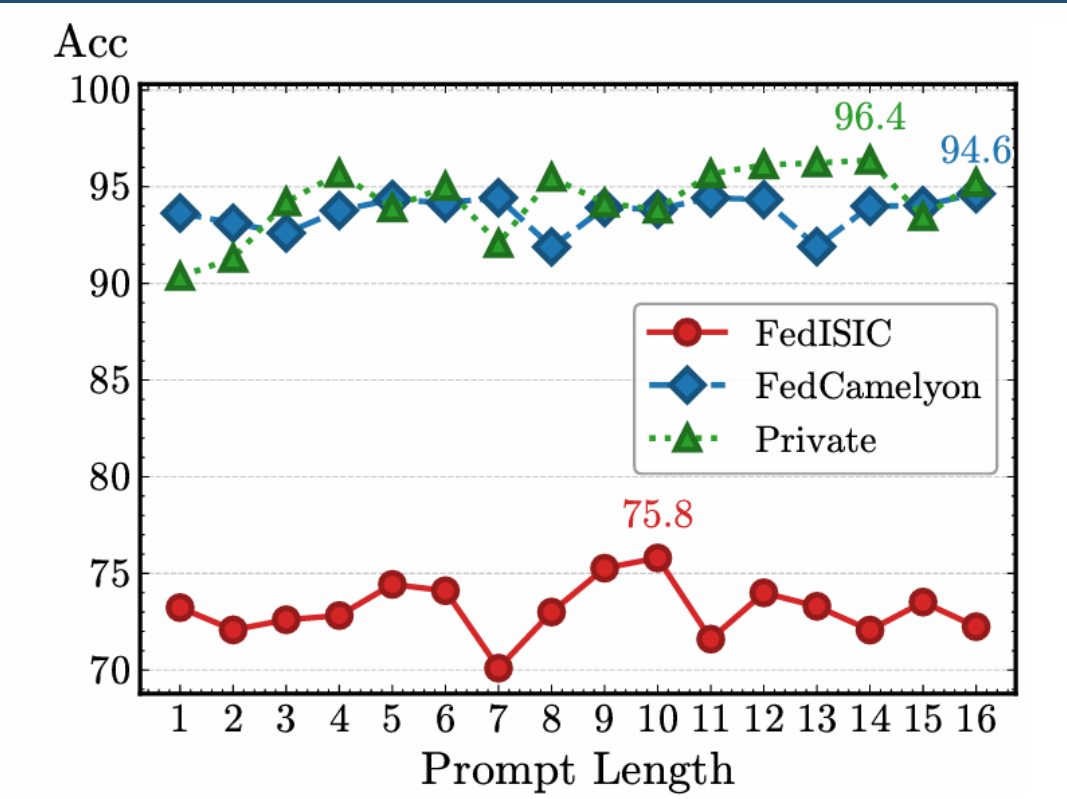
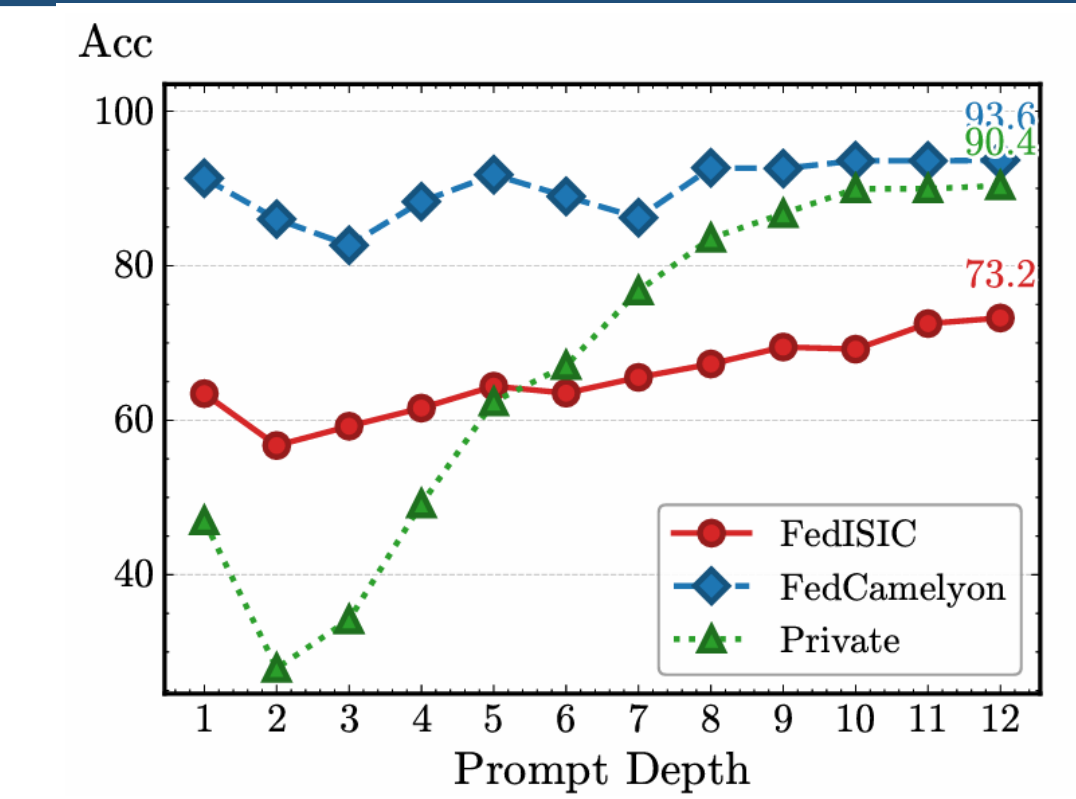
Methods	CWZ			RST			UMCU			RUMC			LPON			Avg	
	Acc	F1		Acc	F1		Acc	F1		Acc	F1		Acc	F1		Acc	F1
Zero-Shot CLIP [ICML 2021]	59.52	53.30		51.83	42.20		68.78	66.00		55.29	47.40		51.75	37.20		57.43	49.22
PromptFL [TMC 2023]	91.13±0.03	91.10±0.00		85.05±0.19	84.97±0.23		90.93±0.29	90.90±0.26		90.23±0.75	90.20±0.79		93.96±1.15	93.93±1.17		90.26±0.35	90.22±0.35
PromptFL+Prox [PMLR 2020]	91.11±0.07	91.07±0.06		85.05±0.18	85.00±0.17		90.90±0.28	90.87±0.25		90.40±0.61	90.37±0.64		94.01±1.20	94.00±1.25		90.29±0.36	90.26±0.36
FedKgCoOP [CVPR 2023]	90.71±0.06	90.70±0.10		74.53±2.71	73.53±3.26		89.51±0.09	89.50±0.10		86.27±0.83	86.10±0.89		92.42±0.99	92.43±1.01		86.69±0.57	86.45±0.30
FedCLIP [ICLR 2023]	90.13±0.28	90.10±0.26		81.95±0.71	81.87±0.71		90.65±0.33	90.63±0.32		89.04±0.17	89.00±0.20		91.72±1.29	91.73±1.29		88.70±0.32	88.67±0.73
FedAPT [AAAI 2024]	91.36±0.11	91.33±0.15		85.25±0.87	85.70±0.28		90.40±0.73	90.37±0.76		90.68±0.48	90.63±0.51		94.95±0.30	94.93±0.32		90.53±0.37	90.98±0.46
FOCoOP [ICML 2025]	76.70±14.09	74.33±17.06		74.27±9.28	72.20±11.74		72.98±14.48	69.33±19.54		76.05±13.02	73.80±15.88		72.61±8.92	69.93±11.10		74.52±11.07	71.92±14.13
FedMVP [ICCV 2025]	89.87±3.10	89.87±3.09		82.10±0.83	81.83±0.87		89.74±4.84	89.73±4.88		90.80±2.19	90.80±2.17		91.55±5.01	91.53±5.06		88.81±3.10	88.75±3.09
FedMAP (Ours)	93.71±0.39	93.10±0.17		87.48±4.53	87.33±4.79		93.23±0.17	93.20±0.17		94.72±0.11	94.73±0.06		96.60±0.31	96.60±0.35		93.15±0.87	92.99±3.01

Methods	RMD		RMZ		SFY		Avg	
	Acc	F1	Acc	F1	Acc	F1	Acc	F1
Zero-Shot CLIP [ICML 2021]	6.96	4.50	7.83	4.20	13.91	7.30	9.57	5.33
PromptFL [TMC 2023]	63.00±4.76	57.50±7.55	78.97±0.69	75.73±0.76	62.05±3.58	58.47±3.40	68.01±0.87	63.90±1.46
PromptFL+Prox [PMLR 2020]	63.00±4.76	57.50±7.55	78.97±0.69	75.73±0.76	62.05±3.58	58.47±3.40	68.01±0.87	63.90±1.46
FedKgCoOP [CVPR 2023]	58.85±2.94	53.03±4.43	71.05±1.71	66.50±1.39	58.21±1.85	54.17±2.20	62.70±1.41	57.90±1.55
FedCLIP [ICLR 2023]	54.33±1.06	49.03±2.40	71.37±5.60	66.80±5.91	59.03±5.33	56.60±6.08	61.58±3.99	57.48±4.78
FedAPT [AAAI 2024]	65.45±4.34	60.70±5.30	80.86±1.56	77.83±1.59	65.95±1.47	63.07±0.84	70.75±1.13	67.20±1.03
FOCoOP [ICML 2025]	35.90±12.82	27.43±14.73	37.22±11.13	31.33±9.83	31.85±7.68	25.93±8.86	34.99±10.52	28.23±11.08
FedMVP [ICCV 2025]	46.76±5.44	39.67±6.86	63.19±3.12	58.30±4.12	45.20±1.33	42.60±1.21	51.72±2.67	46.86±3.28
FedMAP (Ours)	87.67±2.96	85.70±3.81	94.55±0.00	92.80±0.35	86.57±1.02	85.63±1.33	89.60±1.33	88.04±1.83

Generalization
Ability

4. Ablation Study

Anchor Type	FedISIC	FedCamelyon17	Private	Avg
Random	57.05	90.83	40.13	62.67
CLS-only	70.04	93.08	89.25	84.12
Template	70.15	93.17	89.58	84.30
Attribute-only	71.05	93.43	90.08	84.85
Single (one anchor)	68.88	92.43	89.18	83.50
Gauss Noisy				
Low ($\sigma=0.01$)	72.65	93.57	85.11	83.78
Medium ($\sigma=0.05$)	64.02	93.07	82.25	79.78
High ($\sigma=0.10$)	49.08	92.93	19.52	53.84
MSA (codebook ensemble)	73.23	93.64	90.36	85.74



5. Resources

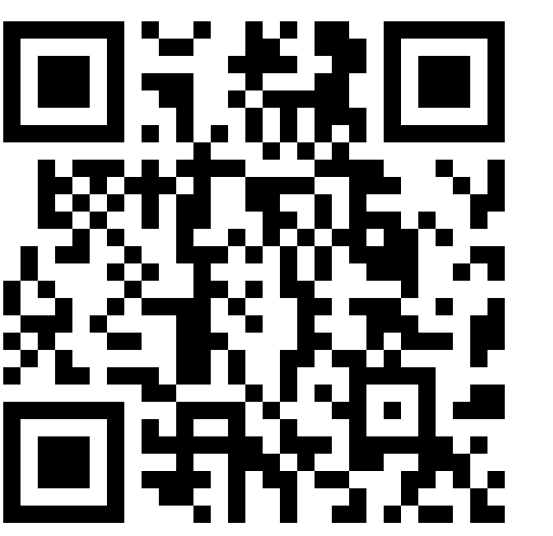
Paper



Code



Our Team



➤ **Geometric Diagnosis.** We identify two failure modes in medical federated prompt learning, *intra-client medical manifold collapse* and *inter-client medical topological misalignment*.

➤ **Visual Manifold Anchoring.** We propose FedMAP, which shifts federated prompt learning toward visual manifold anchoring with *Manifold Semantic Anchoring* and *Topology Structural Alignment*.

➤ **Generalization.** FedMAP achieves *SOTA* performance on FedISIC, FedCamelyon17, and a private fetal ultrasound dataset.