

Algorithm	Input	Learning Task	Objective	PP Tech	Venue	Link
CVGAE ^[1]	Implicit feedback	Click prediction	Perf + Priv + Eff	Camouflage	TKDE'25	https://github.com/YudiXiong/CVGAE
FedHCDR ^[2]	Implicit feedback	Click prediction	Perf + Priv	Decoupling	ECML PKDD'24	https://github.com/orion-orion/FedHCDR
PPGenCDR ^[3]	Implicit feedback	Click prediction	Perf + Priv	GAN + RDP	AAAI'23	https://github.com/XeniaLLL/PPGenCDR
PriCDR ^[4]	Implicit feedback	Click prediction	Perf + Priv	JLT + SJLT + DP	WWW'22	https://github.com/TiliaceaeSU/PriCDR
PFCDR ^[5]	Explicit feedback	Rating prediction	Perf + Priv	Prototype mapping	WWW'25	https://github.com/walcheng/PFCDR
VerFedGNN ^[6]	Explicit feedback	Rating prediction	Perf + Priv	TQ + DP	ICML'23	https://github.com/maiph123/VerticalGNN
FedMF ^[7]	Explicit feedback	Rating prediction	Priv	HE	IS'20	https://github.com/Di-Chai/FedMF
FedCSR ^[8]	Single-type sequential feedback	Next-item prediction	Perf + Priv + Eff	-	COLING'25	https://github.com/zdy769243418/FedCSR
FedOCD ^[9]	Single-type sequential feedback	Next-item prediction	Perf + Priv + Eff	LDP	APWeb-WAIM'24	https://github.com/AA-Ashley/FedOCD
FedDCSR ^[10]	Single-type sequential feedback	Next-item prediction	Perf + Priv	Disentanglement	SDM'24	https://github.com/orion-orion/FedDCSR
PriCDSR ^[11]	Single-type sequential feedback	Next-item prediction	Perf + Priv	SDP	ICDM'23	https://github.com/LachlanLin/PriCDSR
FUPM ^[12]	Implicit feedback + Review text	Click prediction	Perf + Priv	LDP	TMM'25	https://github.com/Lili1013/FUPM
PF-GNN+ ^[13]	Implicit feedback + Item information	Click prediction	Perf + Priv	-	UAI'23	https://github.com/zfan20/PFGNNPlus
SeSoRec ^[14]	Explicit feedback + Social relations	Rating prediction	Perf + Priv + Eff	Secret sharing	ECAI'20	https://github.com/encryptogroup/ABY
FFMSR ^[15]	Sequential feedback + Item information	Next-item prediction	Perf + Priv	-	TOIS'25	https://github.com/Sapphire-star/FFMSR
PFCR ^[16]	Sequential feedback + Item information	Next-item prediction	Perf + Priv	CE	WWW'24	https://github.com/Sapphire-star/PFCR

^[1][Xiong *et al.*, 2025]; ^[2][Zhang *et al.*, 2024b]; ^[3][Liao *et al.*, 2023]; ^[4][Chen *et al.*, 2022]; ^[5][Wang *et al.*, 2025a]; ^[6][Mai and Pang, 2023]; ^[7][Chai *et al.*, 2020]; ^[8][Zheng *et al.*, 2025];

^[9][Liu *et al.*, 2024]; ^[10][Zhang *et al.*, 2024a]; ^[11][Lin *et al.*, 2023]; ^[12][Wang *et al.*, 2025b]; ^[13][Fan *et al.*, 2023]; ^[14][Chen *et al.*, 2020]; ^[15][Lu *et al.*, 2025]; ^[16][Guo *et al.*, 2024];

Note: PP Tech = Privacy-Preserving Technique; Perf = Performance; Priv = Privacy; Eff = Efficiency; GAN = Generative Adversarial Network; RDP = Rényi Differential Privacy;

JLT = Johnson-Lindenstrauss Transform; SJLT = Sparse-aware Johnson-Lindenstrauss Transform; DP = Differential Privacy; TQ = Ternary Quantization; HE = Homomorphic Encryption;

LDP = Local Differential Privacy; SDP = Sequential Differential Privacy; CE = Composite Encryption (Quantization + Randomized Response).

Table 1: Summary of representative open-source algorithms in federated cross-domain recommendation.

References

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