

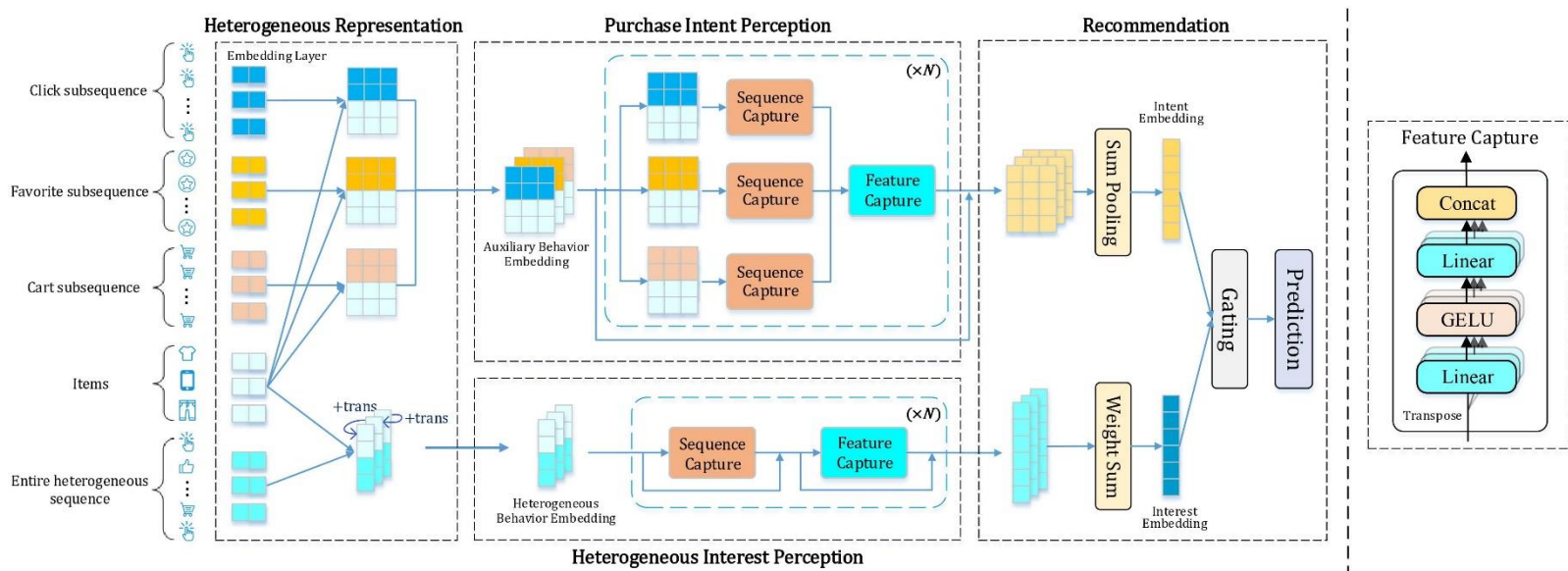
BMLP: Behavior-aware MLP for Heterogeneous Sequential Recommendation

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Problems & Ideas

- Heterogeneous sequential recommendation (HSR)
 - The model complexity and behavior heterogeneity challenges
- Ideas: An MLP-based model which is simple and efficient
 - Multi-granularity modeling of behaviors of the entire heterogeneous sequence
 - Adaptively fusing sub-sequences of auxiliary behaviors



Main Contributions

- Main Results

Dataset	Metric	GRU4Rec [1]	SRGNN [4]	BERT4Rec [3]	SASRec [2]	RIB [5]	BINN [6]	MSR [9]	MLP-Mixer [7]	FMLP [8]	BMLP
Rec15	HR@10	0.437	0.483	0.389	0.437	0.387	0.468	<u>0.605</u>	0.478	0.541	0.618
	NDCG@10	0.249	0.285	0.196	0.248	0.213	0.257	<u>0.378</u>	0.259	0.255	0.407
Tmall	HR@10	0.352	0.274	0.168	0.369	0.269	0.298	0.298	0.292	<u>0.381</u>	0.426
	NDCG@10	0.239	0.187	0.096	0.281	0.188	0.199	0.195	0.203	<u>0.309</u>	0.315
ML1M	HR@10	0.268	0.249	0.145	0.243	0.229	<u>0.273</u>	0.265	0.264	0.116	0.304
	NDCG@10	0.152	0.141	0.072	0.132	0.122	<u>0.155</u>	0.150	0.145	0.058	0.179
UB	HR@10	0.171	0.142	0.098	<u>0.181</u>	0.132	0.141	0.172	0.145	0.158	0.200
	NDCG@10	0.104	0.083	0.055	<u>0.106</u>	0.080	0.083	0.099	0.085	0.103	0.114