Vocabulary

Embedding Layer

	User and Locations	Feature (e.g. rank)		User/location Tokens	Feature Tokens		Token Embeddings	Feature Embeddings	Position Embeddings	Add. & Norm. Embeddings
User ID	U_12	0	>	12	0	>	E_12 +	E_0 +	- E_0 →	E_uID
Location 1	(12,123)	1	→	103	1	→	E_103 +	E_1 +	- E_1 →	E_loc1
Location 2	(143,49)	2	→	532	2	→	E_532 +	E_2 +	- E_2 →	E_loc2
Location 3	(34,3)	5	→	239	5	→	E_239 +	E_5 +	- E_3 →	E_loc3
Location 4	[MASK]	10	→	3	0	→	E_3 +	E_0 +	- E_4 →	E_loc4
Location 5	(12,123)	1	→	103	1	→	E_103 +	E_1 +	- E_5 →	E_loc5
Location 6	(143,49)	2	→	532	2	→	E_532 +	E_2 +	- E_6 →	E_loc6
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