Appendix A   Convergence plots
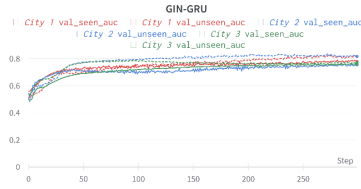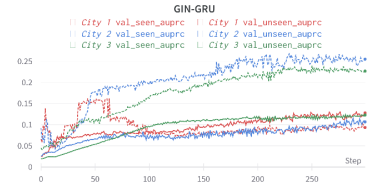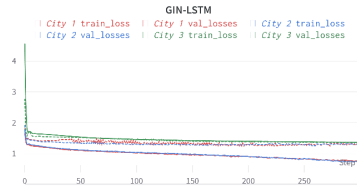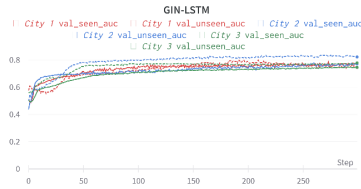

(a) City 1   (b) City 2   (c) City 3
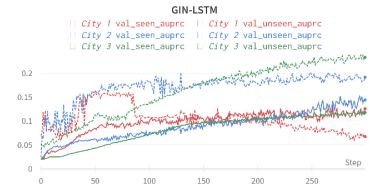
Fig. 1: GIN-GRU
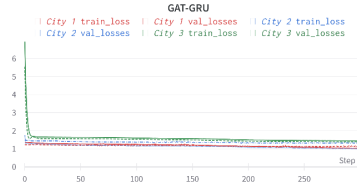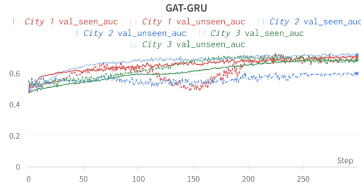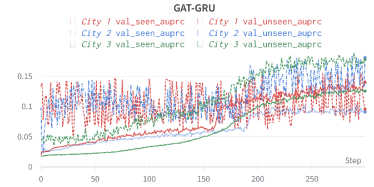

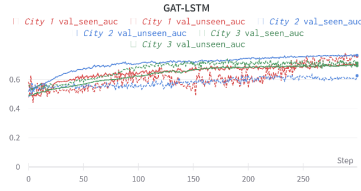(a) City 1   (b) City 2   (c) City 3

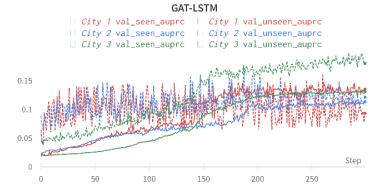Fig. 2: GIN-LSTM

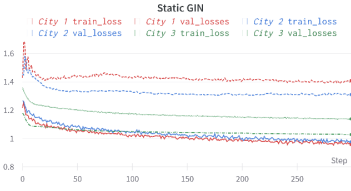(a) City 1   (b) City 2   (c) City 3
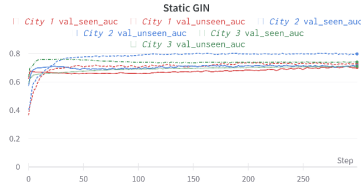
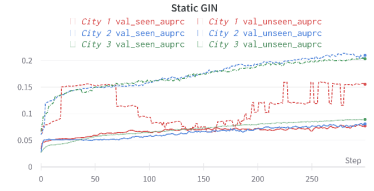Fig. 3: GAT-GRU
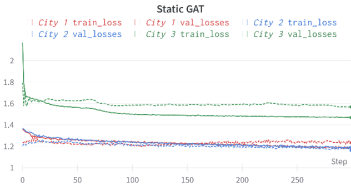
(a) City 1

(b) City 2

(c) City 3

Fig. 4: GAT-LSTM

(a) City 1

(b) City 2
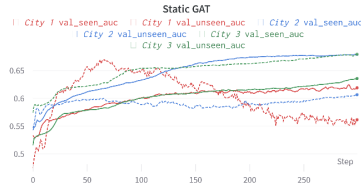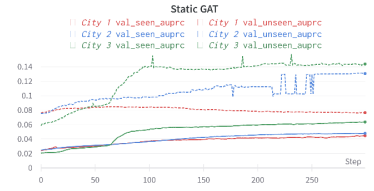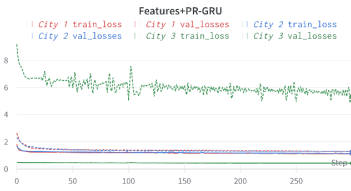
(c) City 3

Fig. 5: Static GIN

(a) City 1

(b) City 2

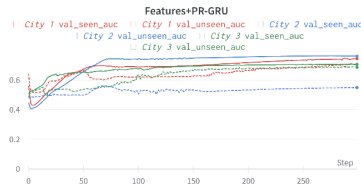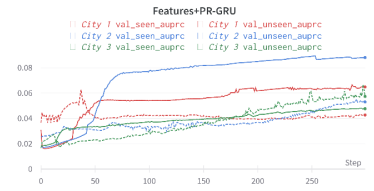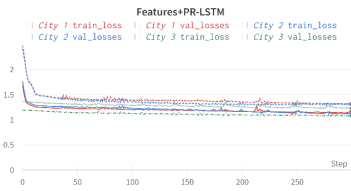(c) City 3

Fig. 6: Static GAT

(a) City 1

(b) City 2
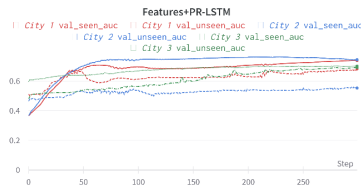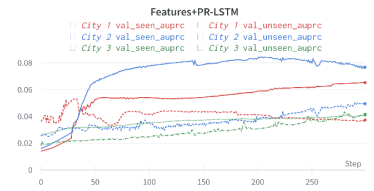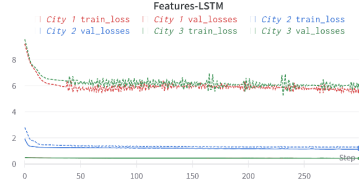
(c) City 3

Fig. 7: Features+PR-GRU

(a) City 1

(b) City 2
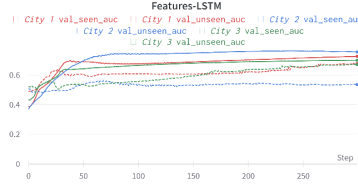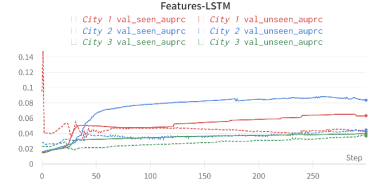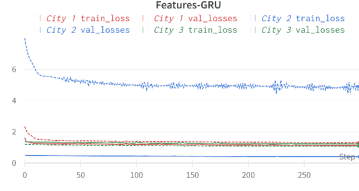
(c) City 3

Fig. 8: Features+PR-LSTM

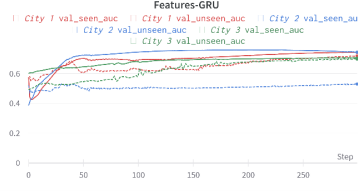(a) City 1   (b) City 2   (c) City 3
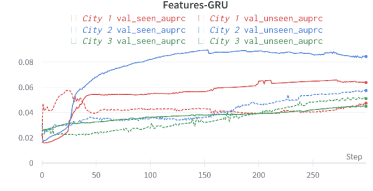
Fig. 9: Features-LSTM

(a) City 1   (b) City 2   (c) City 3

Fig. 10: Features-GRU

Appendix B   Best model configurations

Table 1: Model configurations

Model	#layers GNN	#emb. GNN	#hid.dim. GNN	SMOTE rate	#layers RNN	#hid.dim. RNN	Loss
GIN-LSTM	2	512	512	0	1	256	Focal
GIN-GRU	2	512	512	0	1	512	Focal
GAT-LSTM	2	256	256	0	1	512	Focal
GAT-GRU	2	256	256	0	2	256	Focal
Features+PR-LSTM	/	/	/	0	1	512	BCE
Features+PR-GRU	/	/	/	0.5	1	512	Focal
Features-LSTM	/	/	/	0.5	1	256	Focal
Features-GRU	/	/	/	0	1	512	BCE
Static GAT	4	256	512	0.5	/	/	Focal
Static GIN	2	512	512	0.5	/	/	BCE