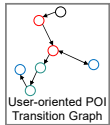


$$\mathcal{G}_u = (\mathcal{V}_u, \mathcal{E}_u, \mathcal{A}_u)$$

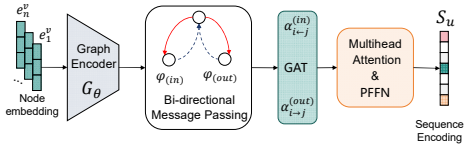


Graph Construct

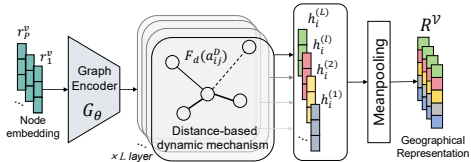


$$\mathcal{G}_D = (\mathcal{V}_D, \mathcal{E}_D, \mathcal{A}_D)$$

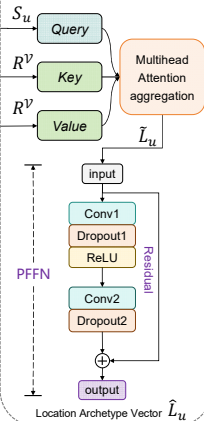
(A) Direction-aware Sequence Graph Multi-scale Representation Module



(B) Global-based Distance Graph Geographical Representation Module



(C) Attention-based Location Archetype Generation Module



(D) Diffusion-based User Preference Sampling

