

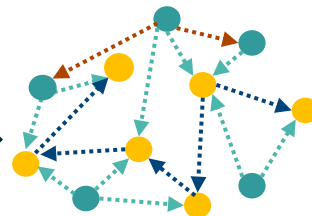


career KG

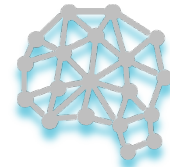


Historical
career
entities

sub-graph
retrieval



retrieved sub-KG



MMP-GAT



self-supervised
link prediction

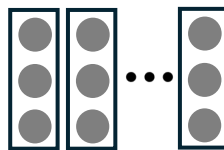
Sub-KG Retrieval & MMP-GAT



historical job titles
& company names



BERT



text-modal
embedding



BiCrossAda

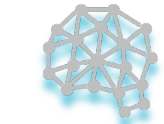


You are a career path planner tasked with helping an individual find new job opportunities
Career 1:
job title: Lead Network Controller<|HisJobEmb|>
company name: SITA<|HisCompEmb|>
.....

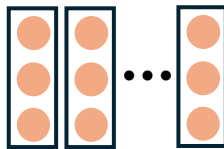
KG enhanced soft-prompt



retrieved sub-KG



Pre-trained
MMP-GAT



graph-modal
embedding

W_{Gsg}



$$\mathcal{L}_{RS} = \sum_{h \in H_q} \log \{ W_{Gsg} \cdot [\exp(s_{h,n})]_{n \in G_{sg}} \}$$

retrieval score



QLoRA



Llama-3.1-8b



next job



next company

Soft Prompt Construction & LLM PEFT