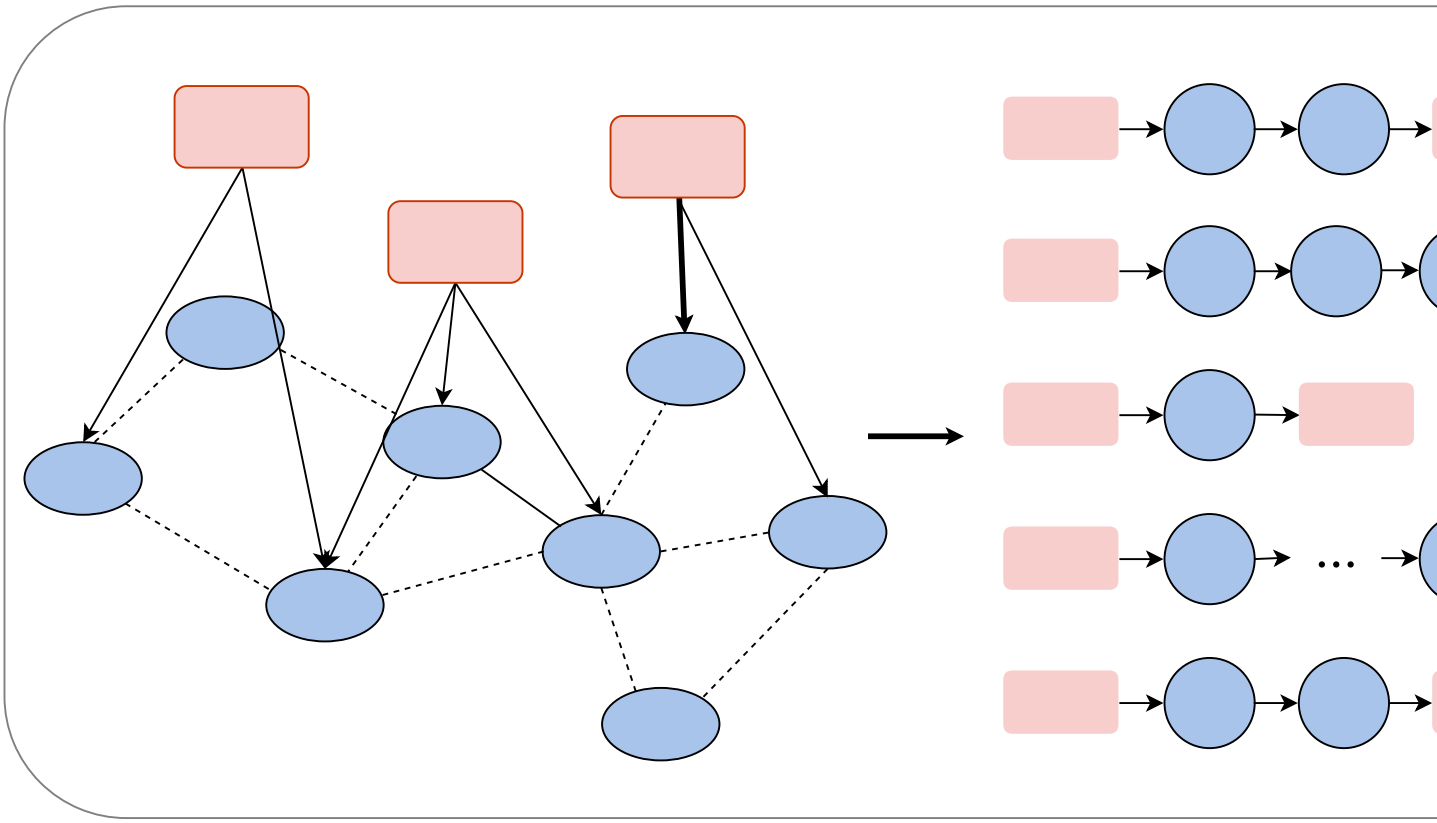
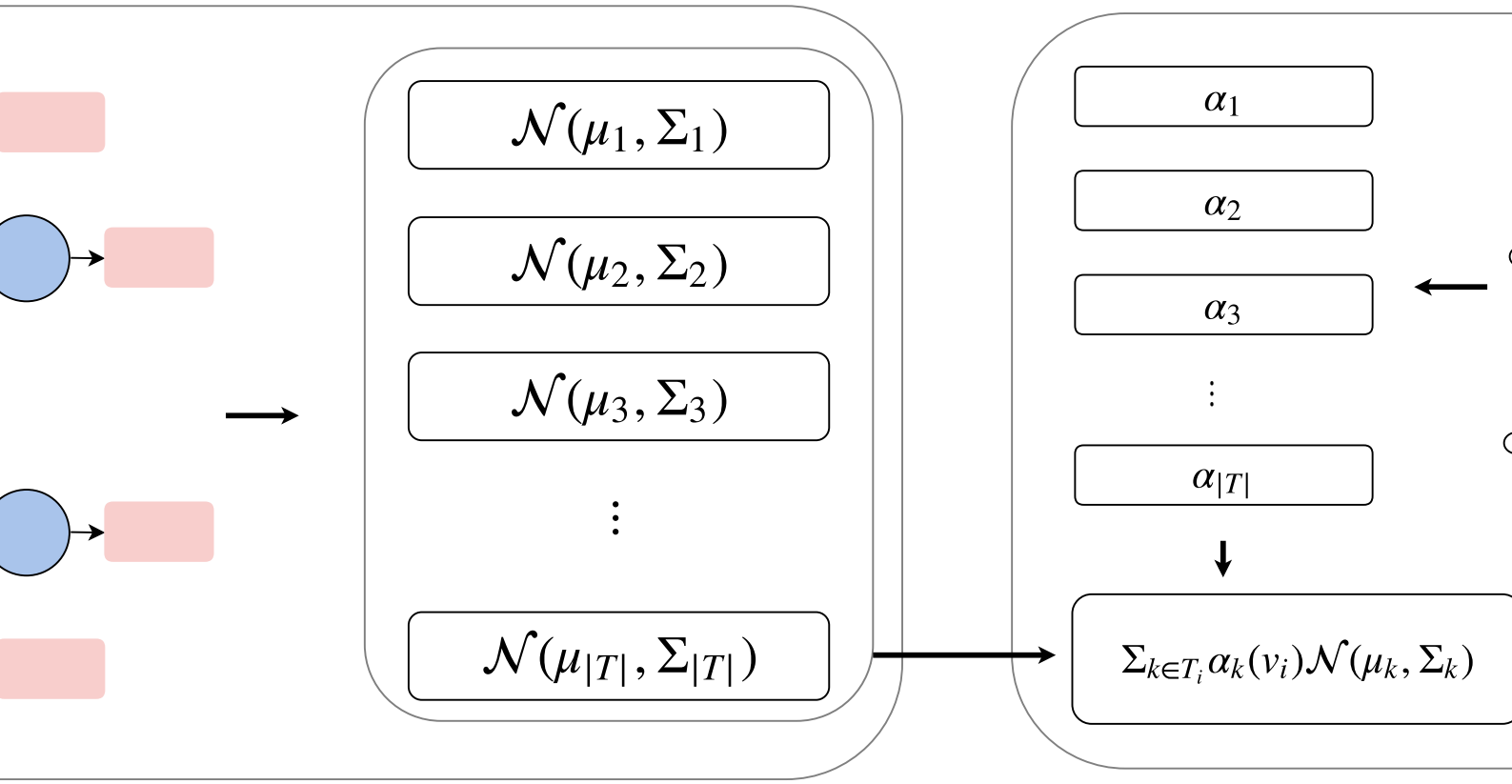
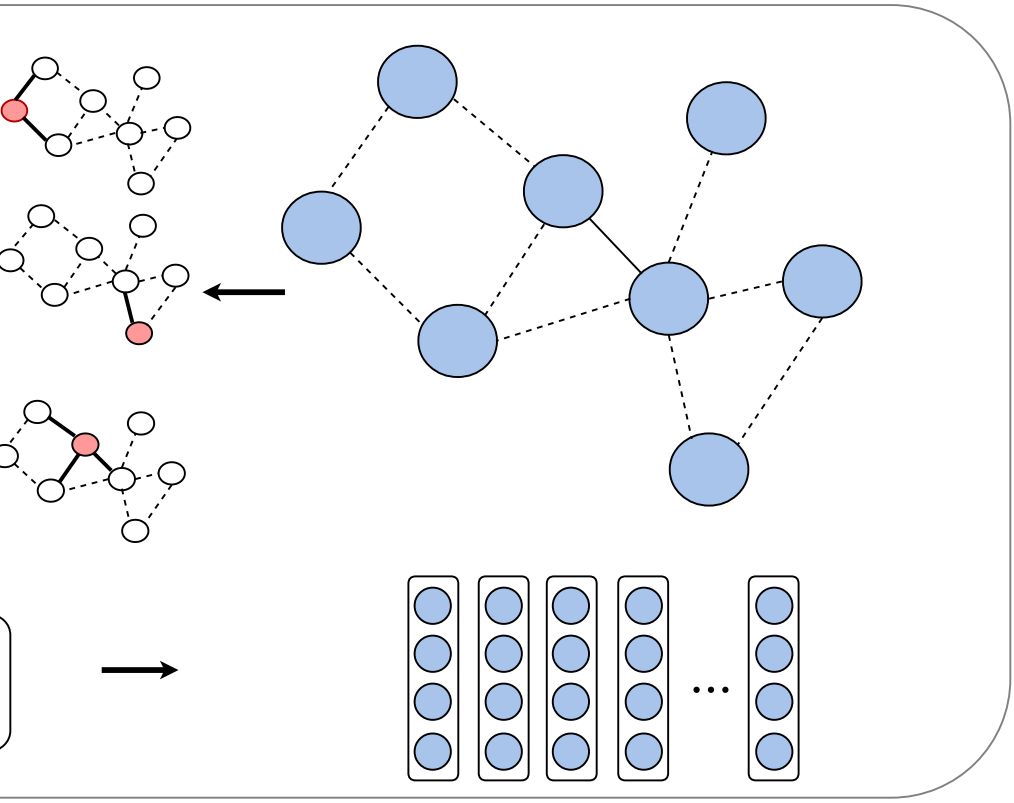
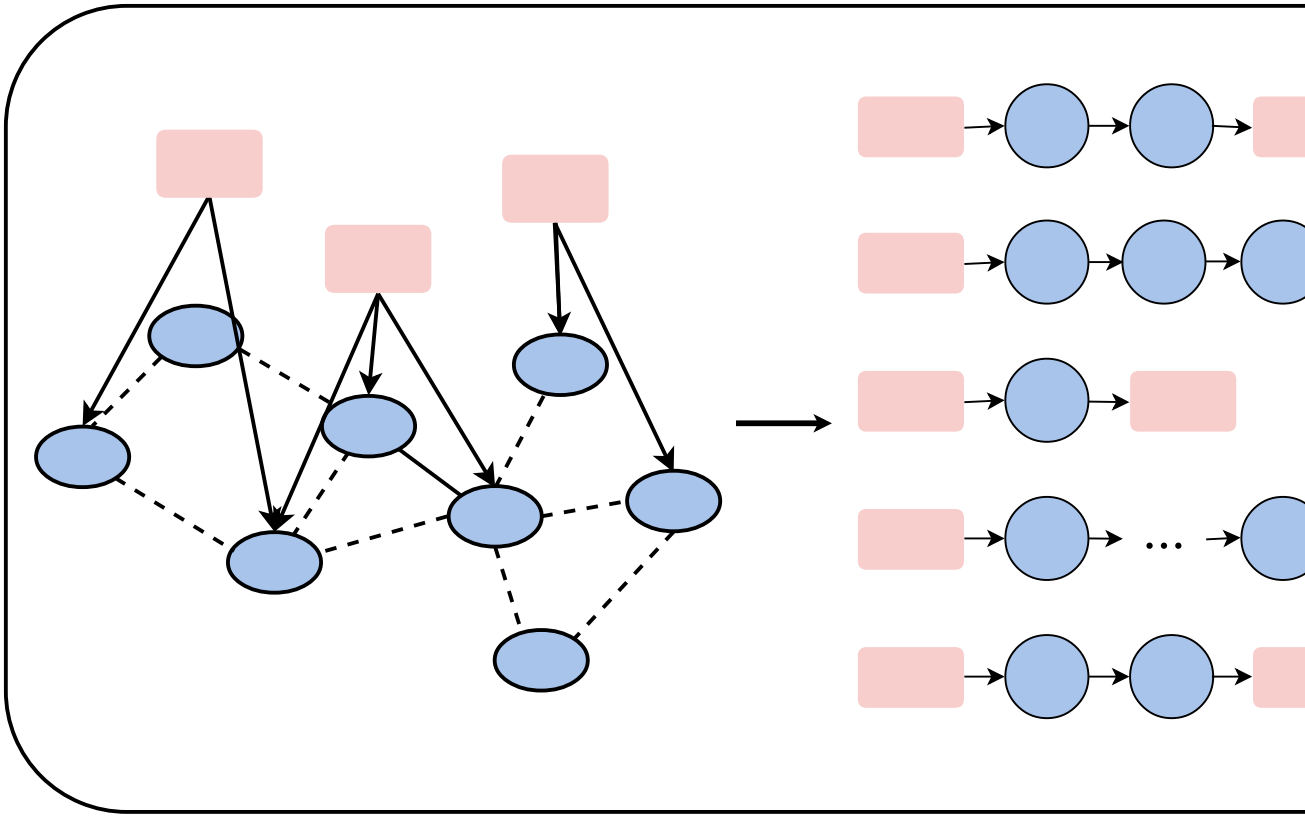
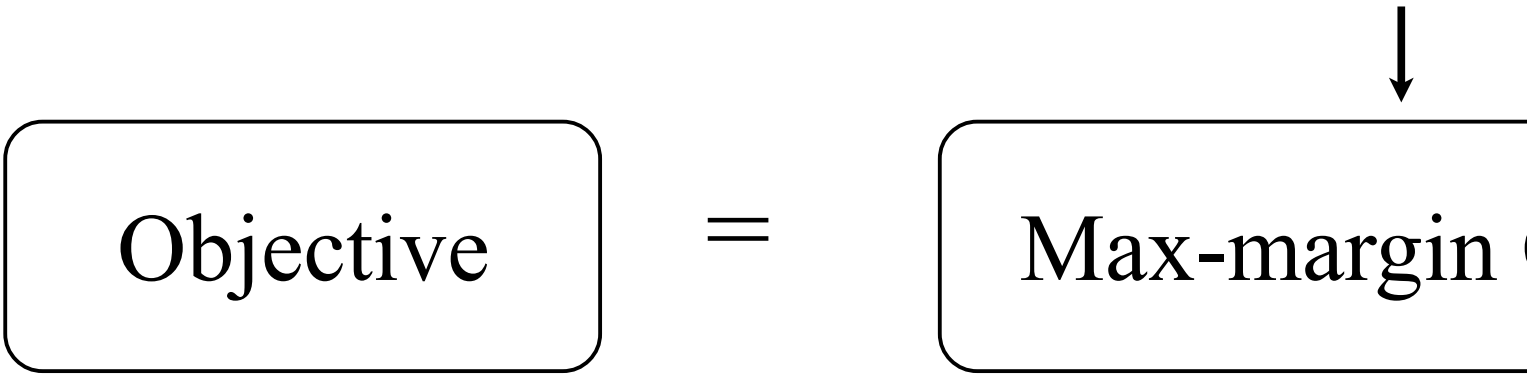



$\mathcal{N}(\mu_1, \Sigma_1)$
$\mathcal{N}(\mu_2, \Sigma_2)$
$\mathcal{N}(\mu_3, \Sigma_3)$
$\mathcal{N}(\mu_{|T|}, \Sigma_{|T|})$
α_1
α_2
α_3
$\alpha_{|T|}$
$\Sigma_{k \in T_i} \alpha_k(v_i) \mathcal{N}(\mu_k, \Sigma_k)$

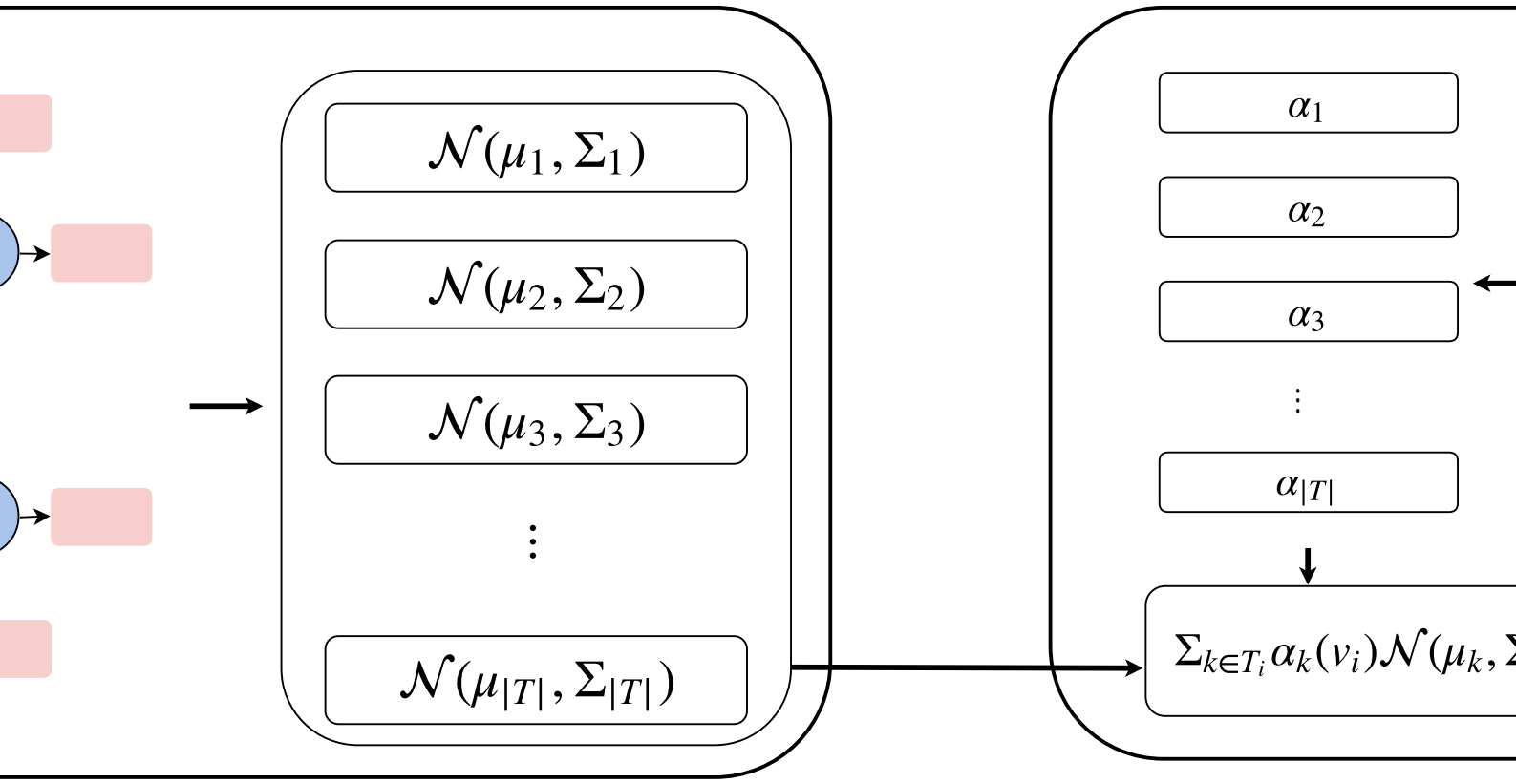


Tag View Embedding Module



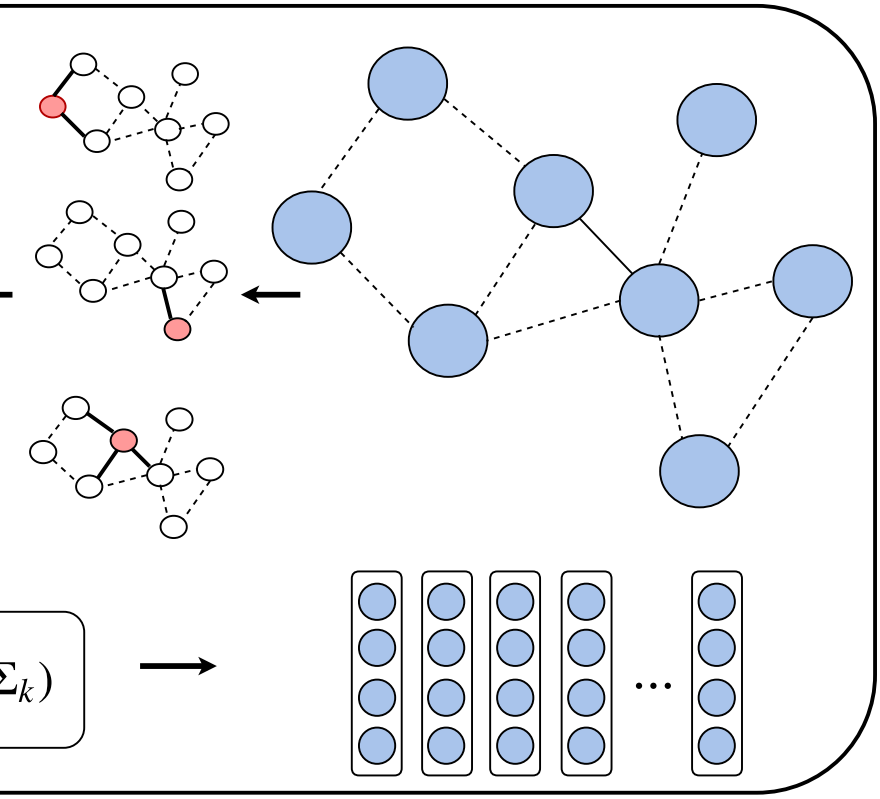


Node



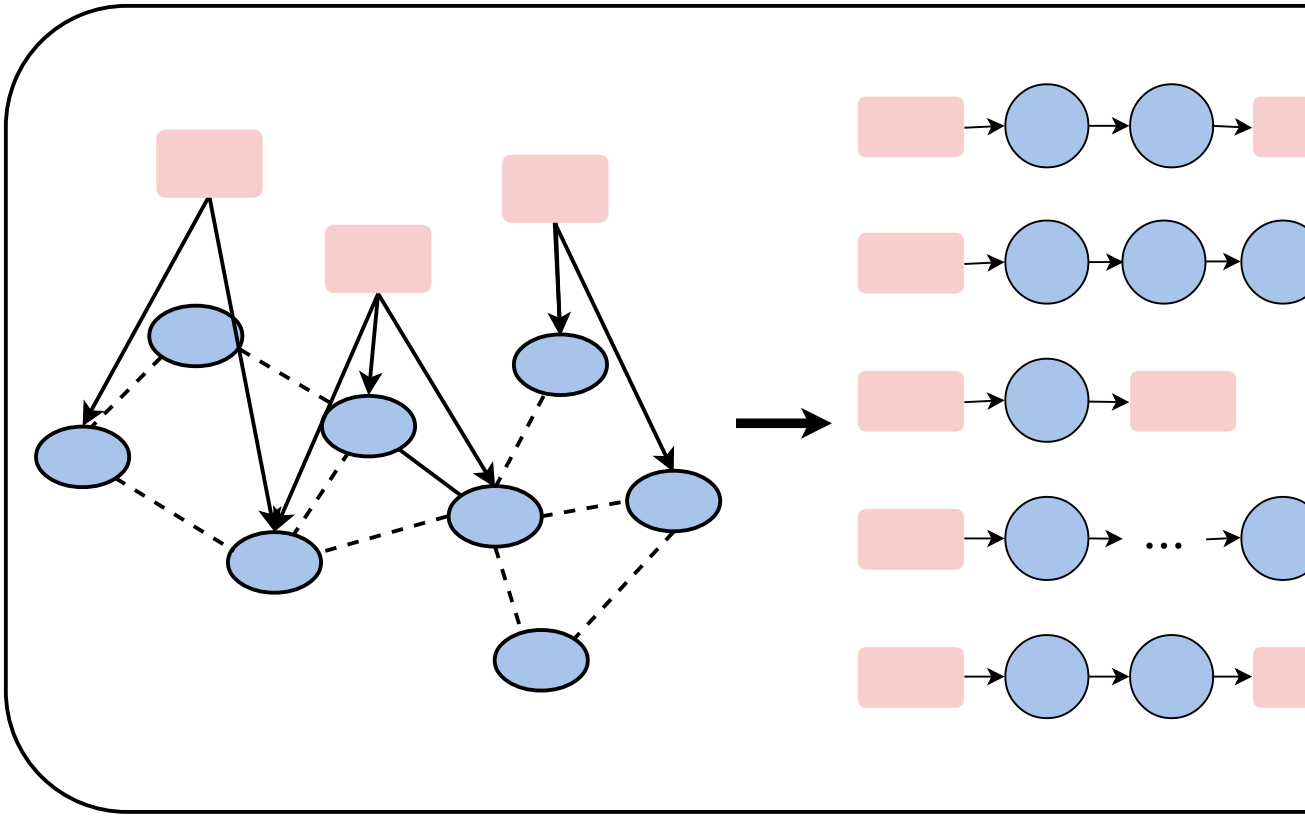
Objective + Cross E

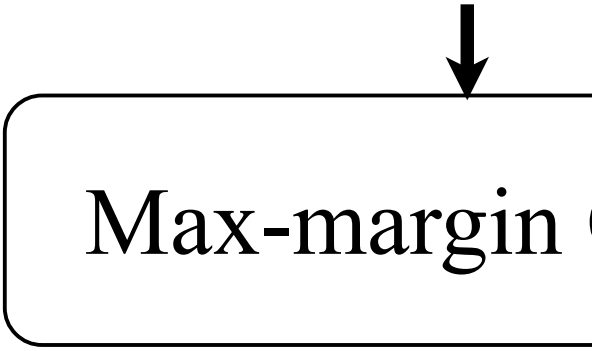
View Embedding Module



Entropy Objective

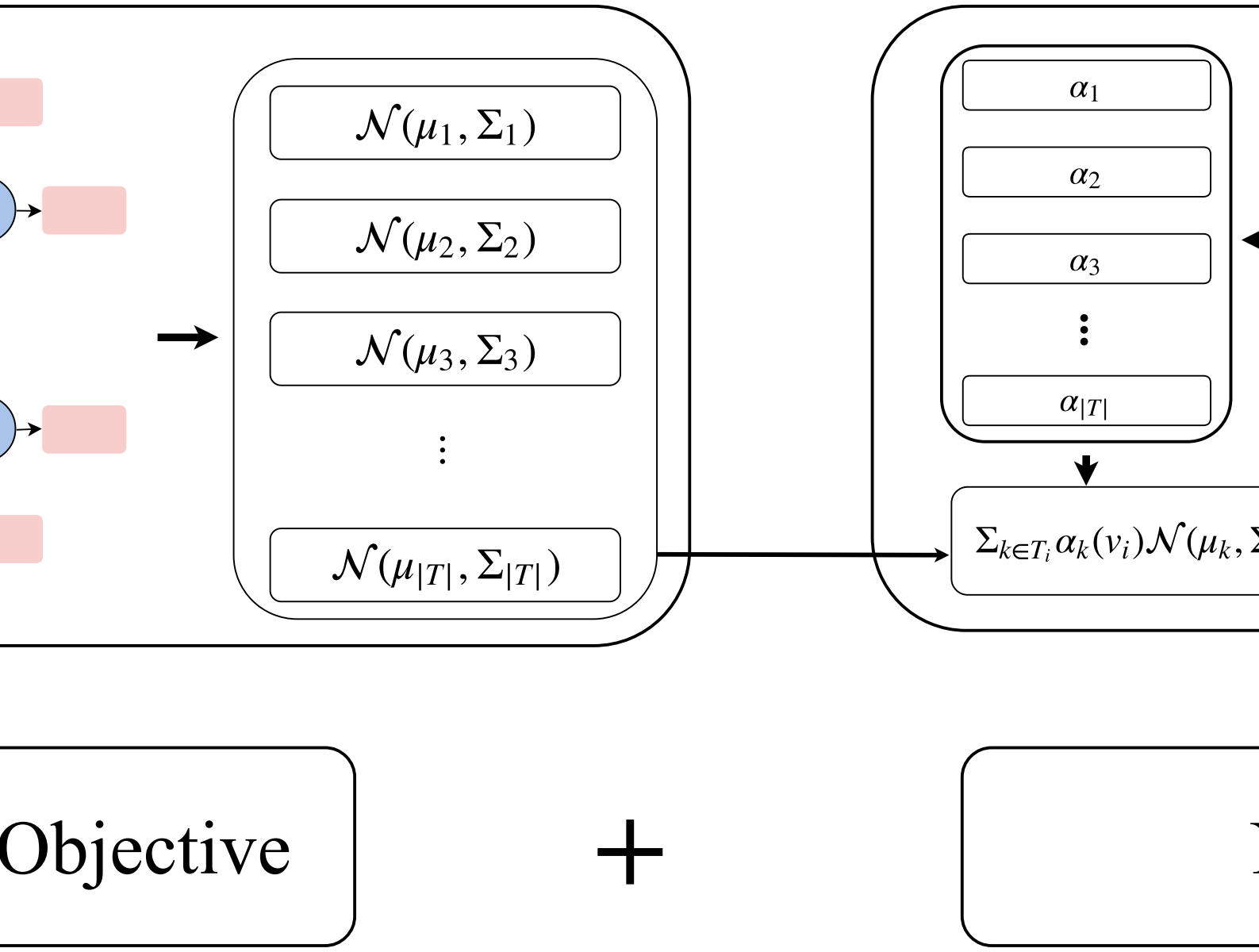
Tag View Embed



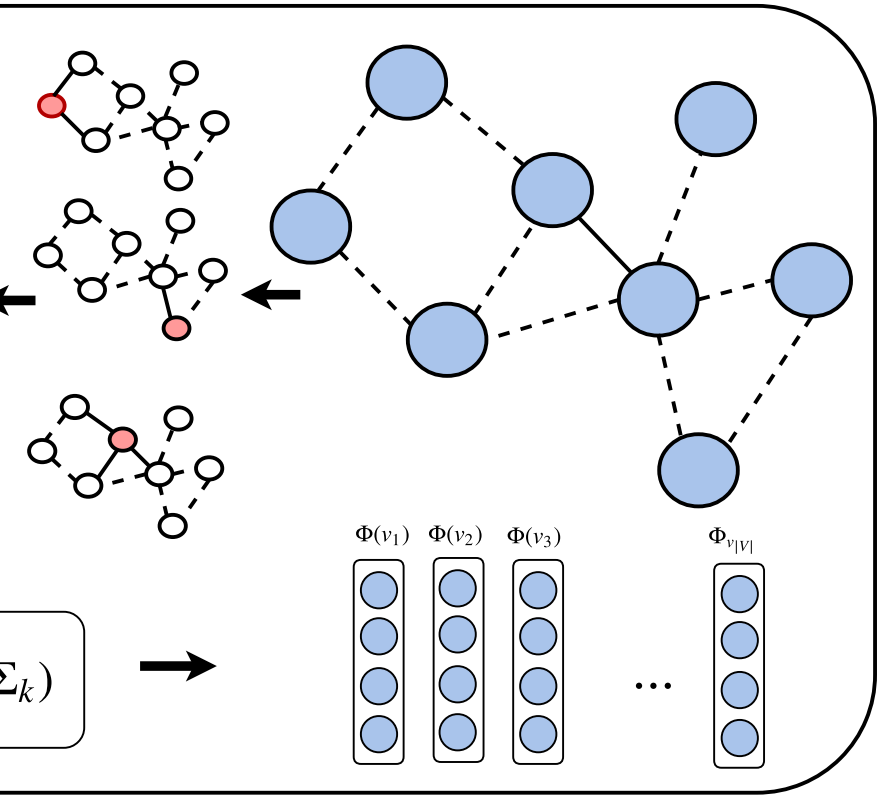


Objective =

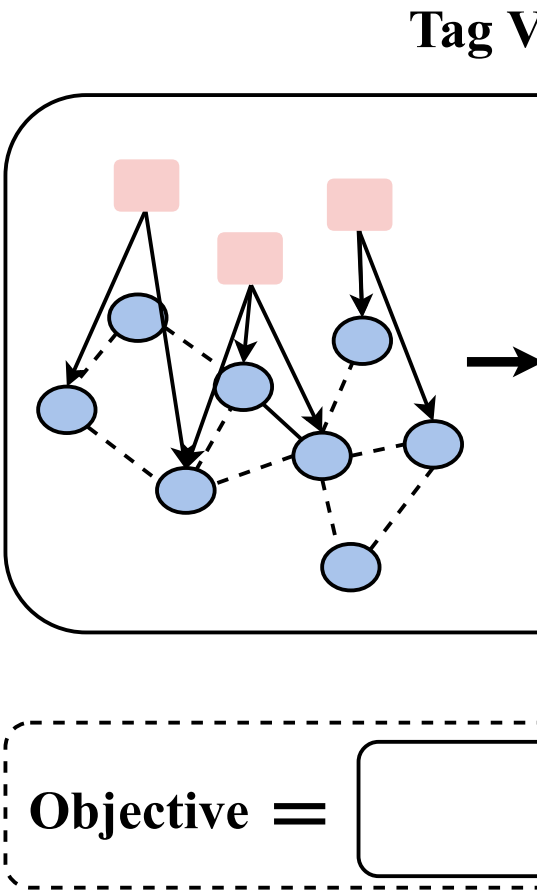
Max-margin

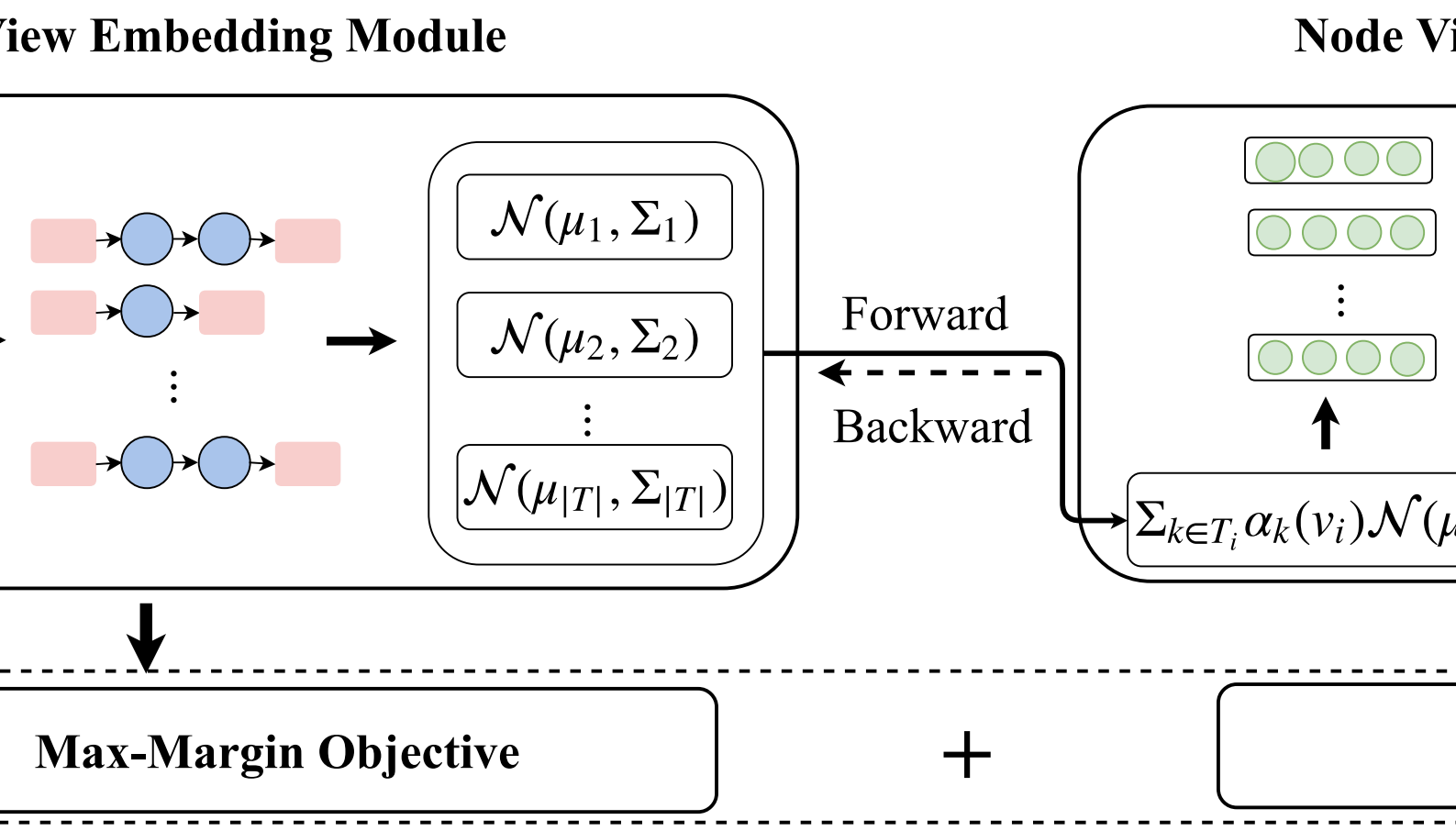

lding Module
Node Vi
$\mathcal{N}(\mu_1, \Sigma_1)$
$\mathcal{N}(\mu_2, \Sigma_2)$
$\mathcal{N}(\mu_3, \Sigma_3)$
$\mathcal{N}(\mu_{|T|}, \Sigma_{|T|})$
α_1
α_2
α_3
$\alpha_{|T|}$
$\Sigma_{k \in T_i} \alpha_k(v_i) \mathcal{N}(\mu_k,$
Objective
+

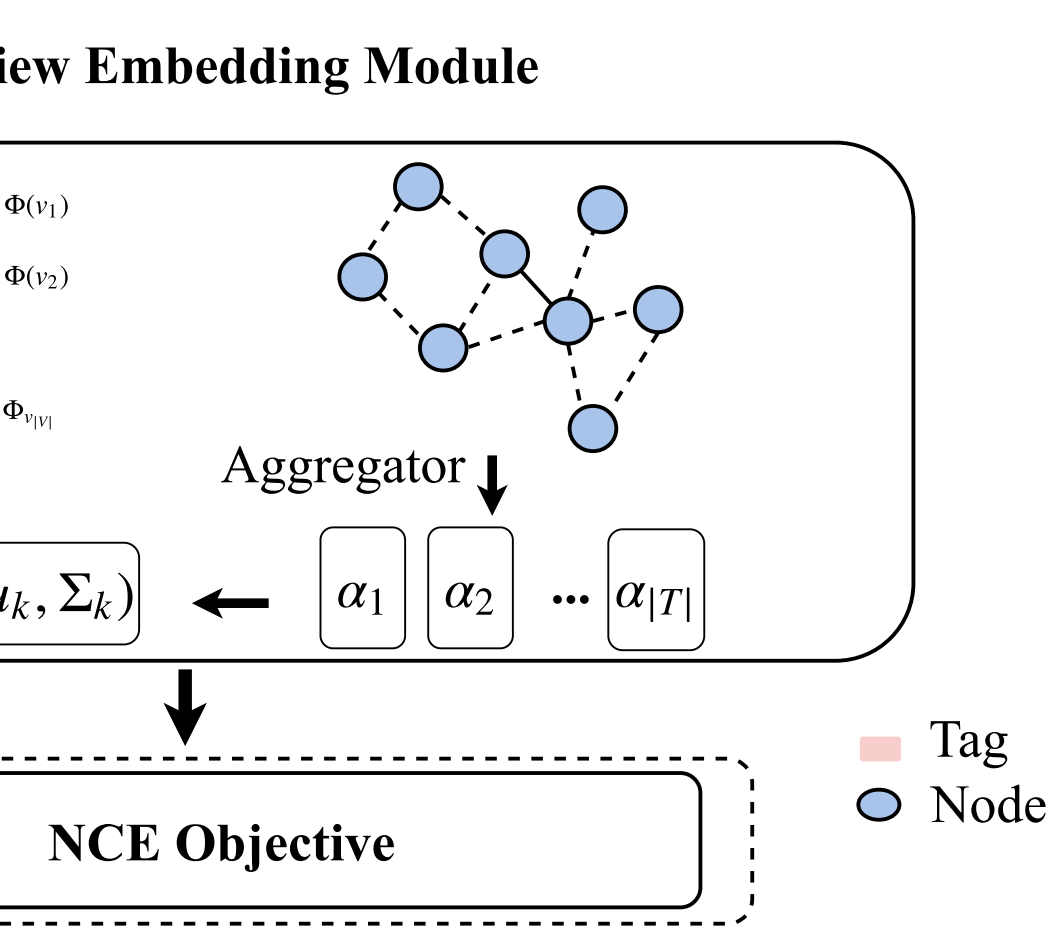
ew Embedding Module

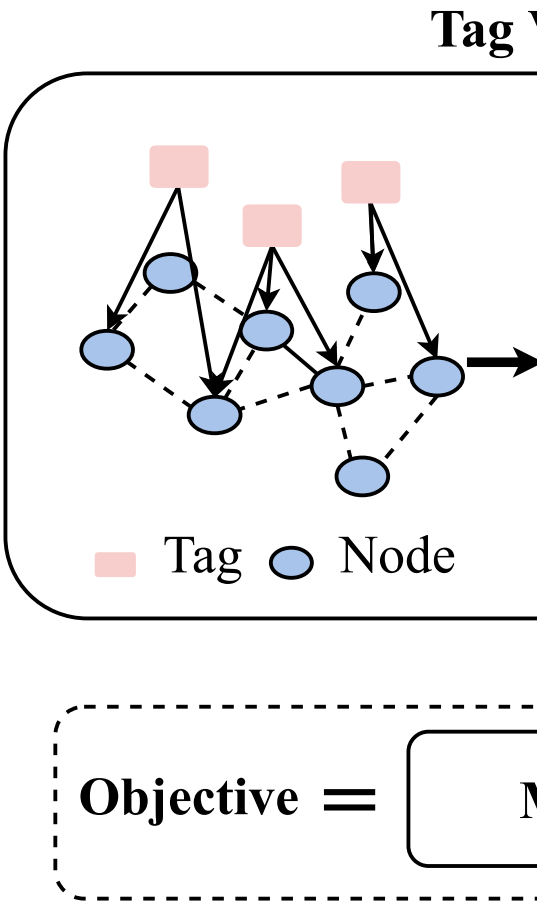


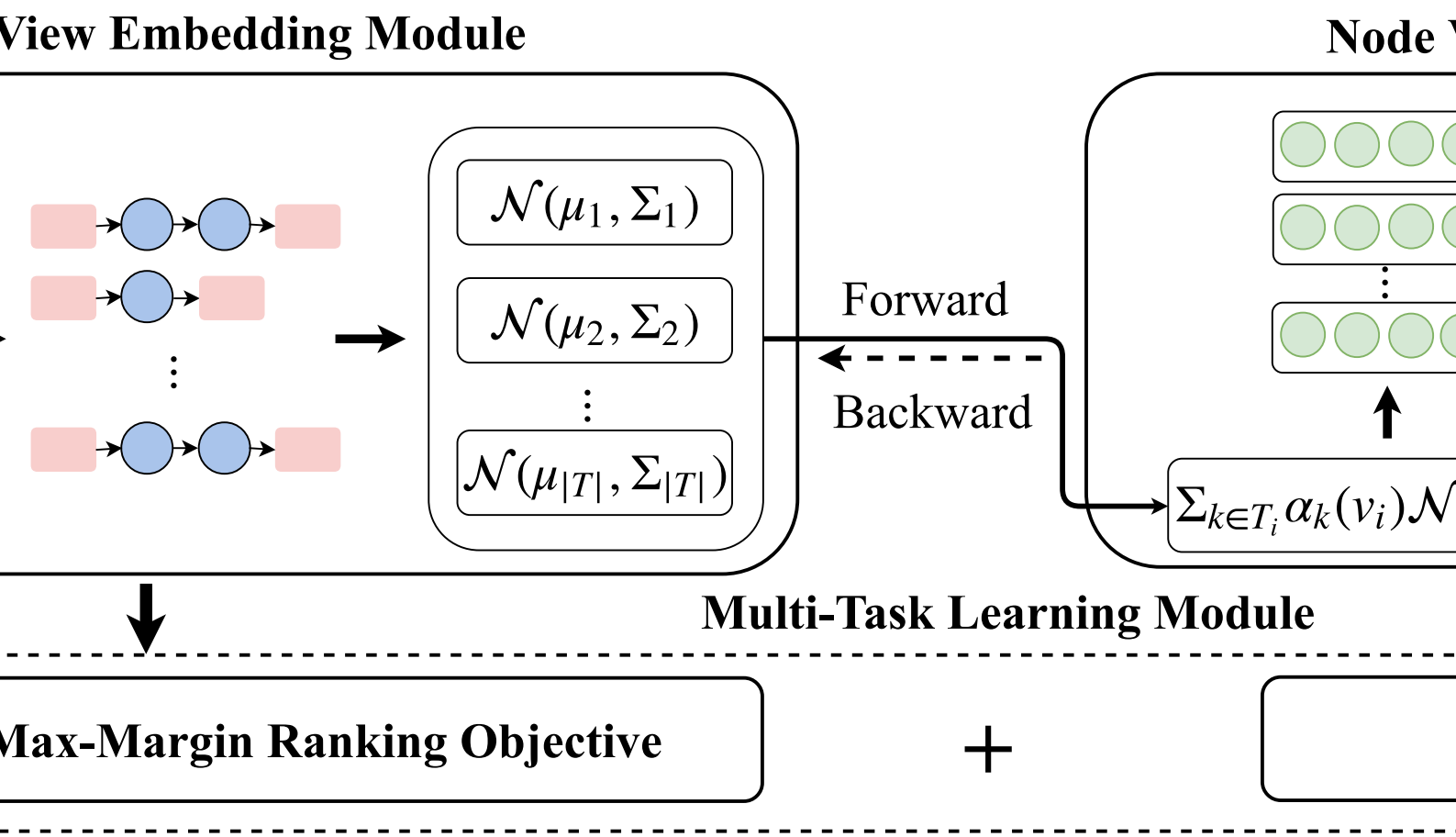
NCE Loss

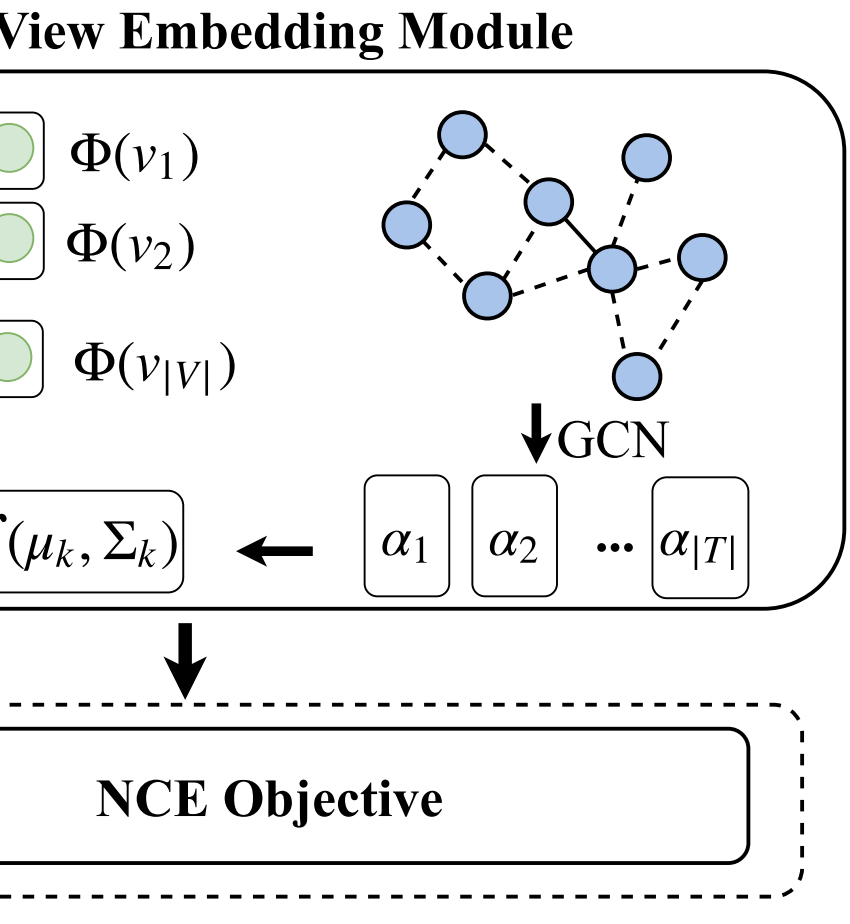

Tag V
Objective =

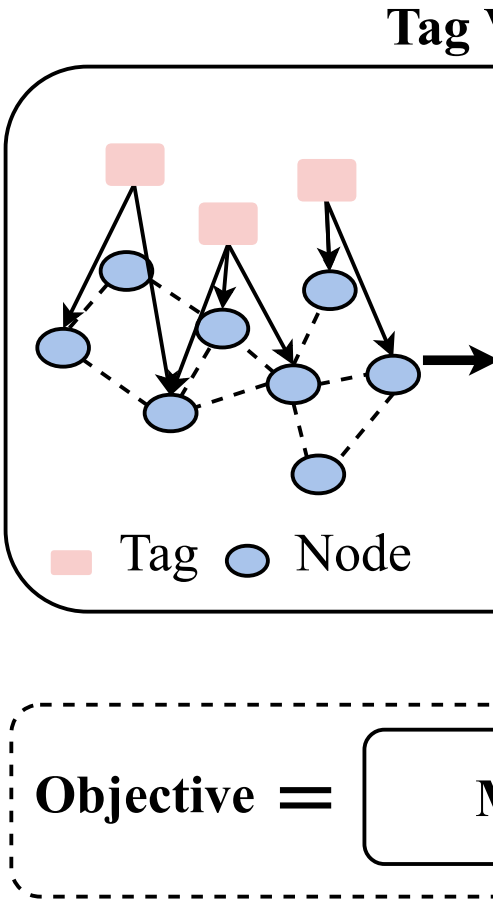

iew Embedding Module
Node Vi
$\mathcal{N}(\mu_1, \Sigma_1)$
$\mathcal{N}(\mu_2, \Sigma_2)$
$\mathcal{N}(\mu_{|T|}, \Sigma_{|T|})$
Forward
Backward
$\Sigma_{k \in T_i} \alpha_k(v_i) \mathcal{N}(\mu$
Max-Margin Objective
+

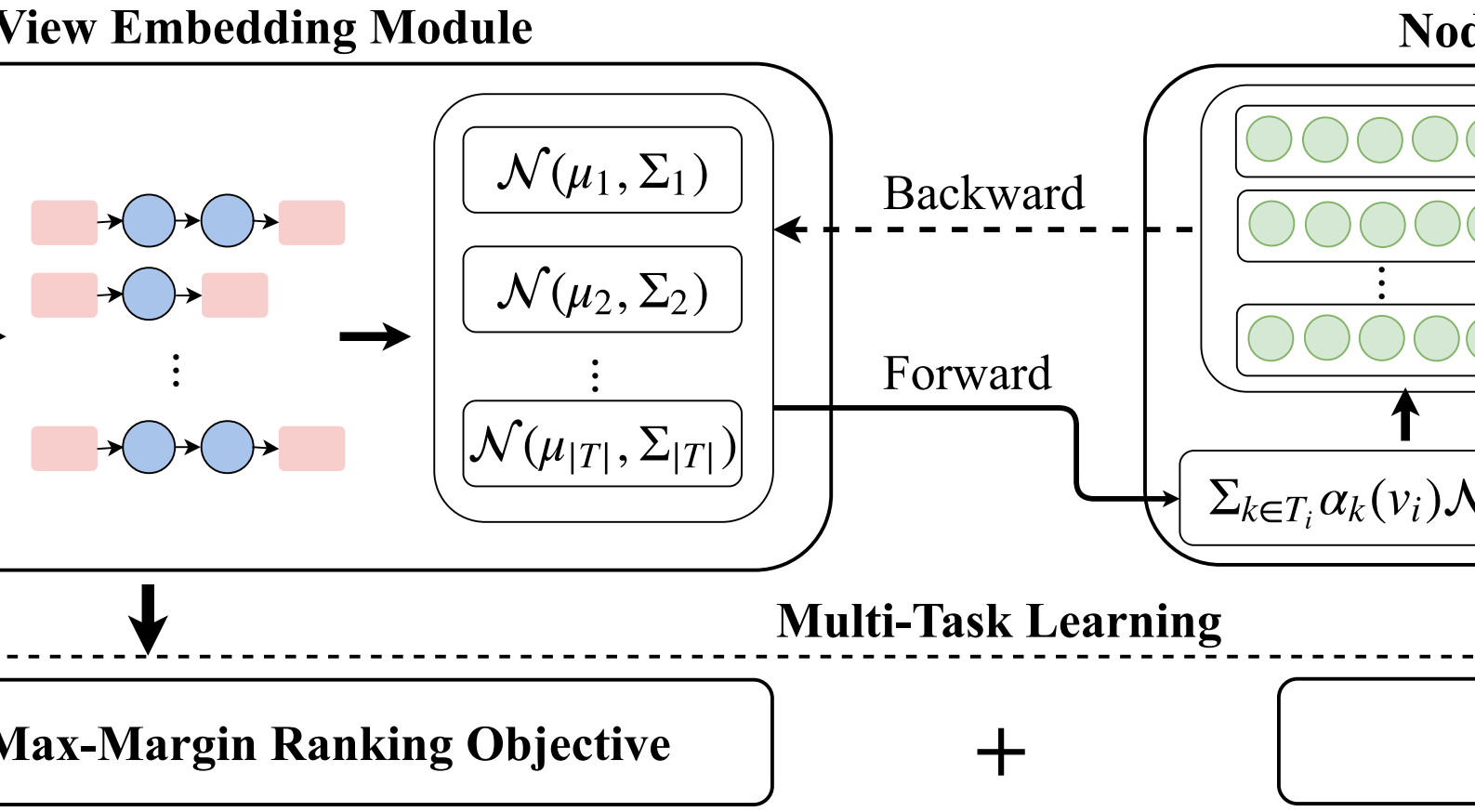

iew Embedding Module
$\Phi(v_1)$
$\Phi(v_2)$
$\Phi_{v_{|V|}}$
Aggregator
$\mu_k, \Sigma_k)$
α_1
α_2
...
$\alpha_{|T|}$
NCE Objective
Tag
Node


Tag
Node
Objective =


View Embedding Module
Node
$\mathcal{N}(\mu_1, \Sigma_1)$
$\mathcal{N}(\mu_2, \Sigma_2)$
$\mathcal{N}(\mu_{|T|}, \Sigma_{|T|})$
Forward
Backward
$\Sigma_{k \in T_i} \alpha_k(v_i) \mathcal{N}$
Multi-Task Learning Module
Max-Margin Ranking Objective
+

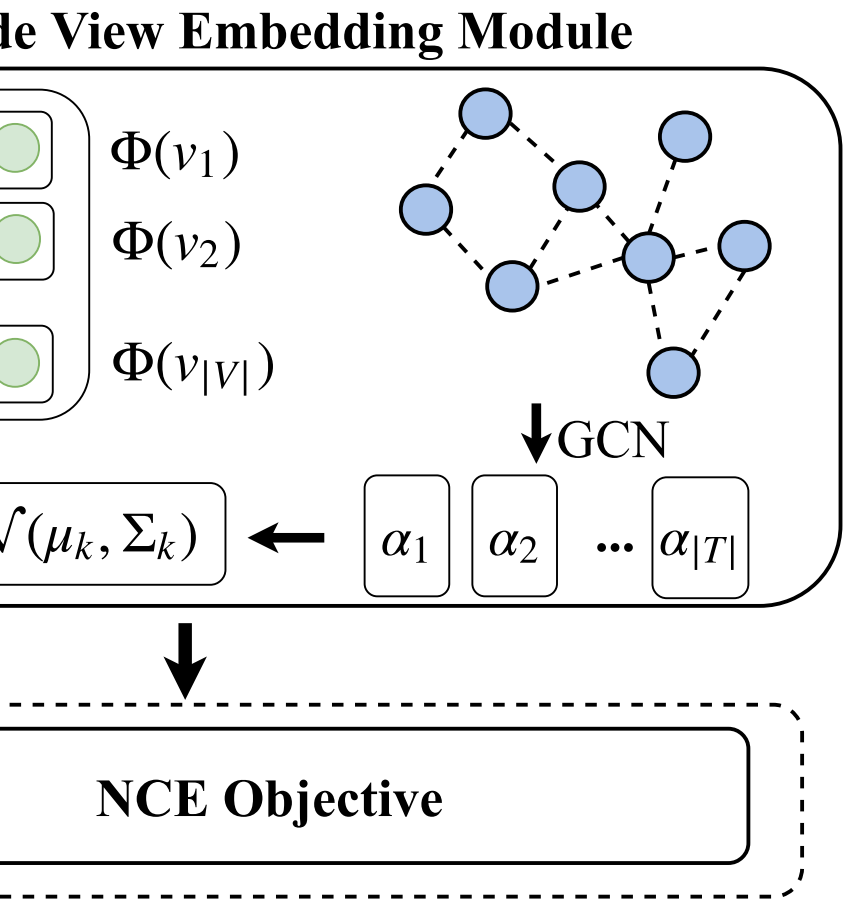

View Embedding Module
$\Phi(v_1)$
$\Phi(v_2)$
$\Phi(v_{|V|})$
GCN
α_1
α_2
...
$\alpha_{|T|}$
(μ_k, Σ_k)
NCE Objective


Tag
Node
Objective =



Multi-Task Learning

Max-Margin Ranking Objective +


de View Embedding Module
$\Phi(v_1)$
$\Phi(v_2)$
$\Phi(v_{|V|})$
GCN
$\sqrt{(\mu_k, \Sigma_k)}$
α_1
α_2
...
$\alpha_{|T|}$
NCE Objective