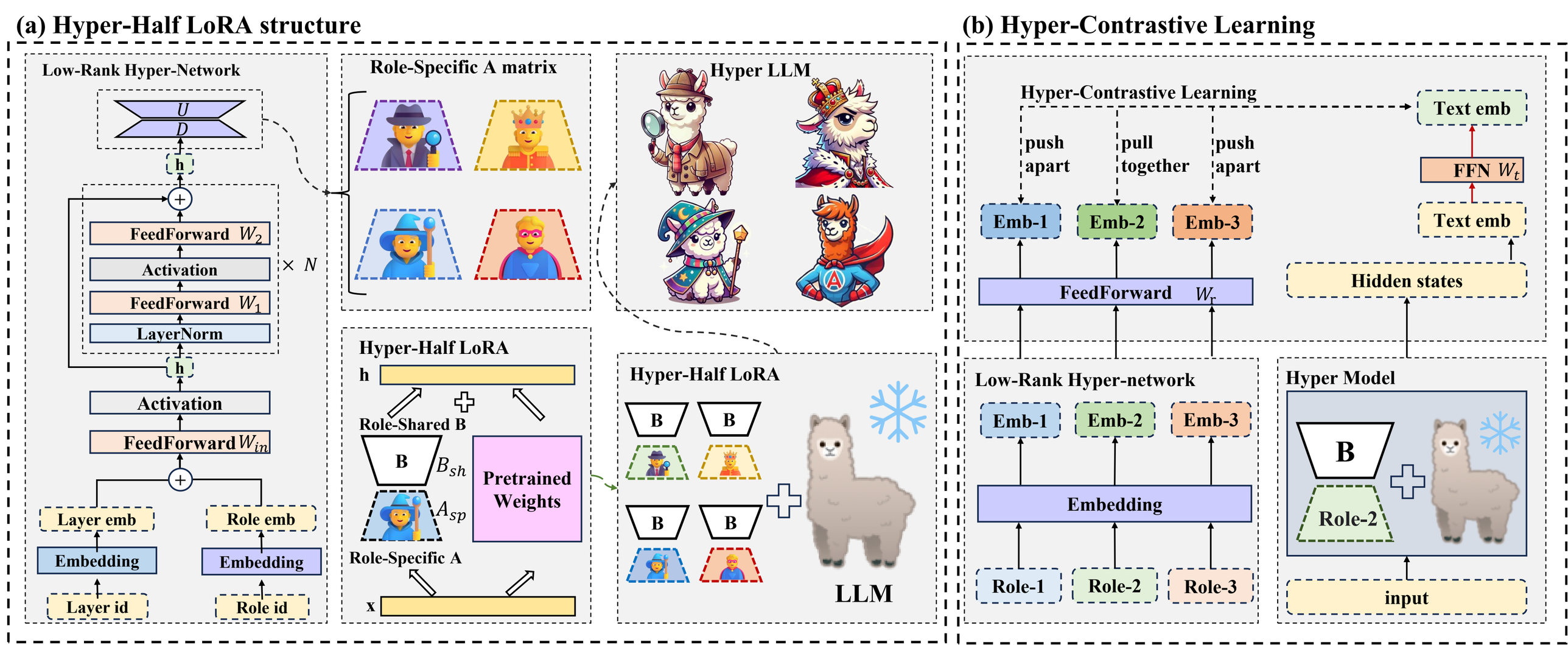
(a) Hyper-Half LoRA structure
Low-Rank Hyper-Network
U
D
h
FeedForward W_2
Activation
FeedForward W_1
LayerNorm
× N
h
Activation
FeedForward W_{in}
Layer emb
Role emb
Embedding
Embedding
Layer id
Role id
Role-Specific A matrix
Hyper LLM
Hyper-Half LoRA
h
Role-Shared B
B
B_{sh}
A_{sp}
Pretrained Weights
Role-Specific A
x
Hyper-Half LoRA
B
B
B
B
LLM
(b) Hyper-Contrastive Learning
Hyper-Contrastive Learning
push apart
pull together
push apart
Emb-1
Emb-2
Emb-3
FeedForward W_t
Text emb
FFN W_t
Text emb
Hidden states
Low-Rank Hyper-network
Emb-1
Emb-2
Emb-3
Embedding
Role-1
Role-2
Role-3
Hyper Model
B
Role-2
input