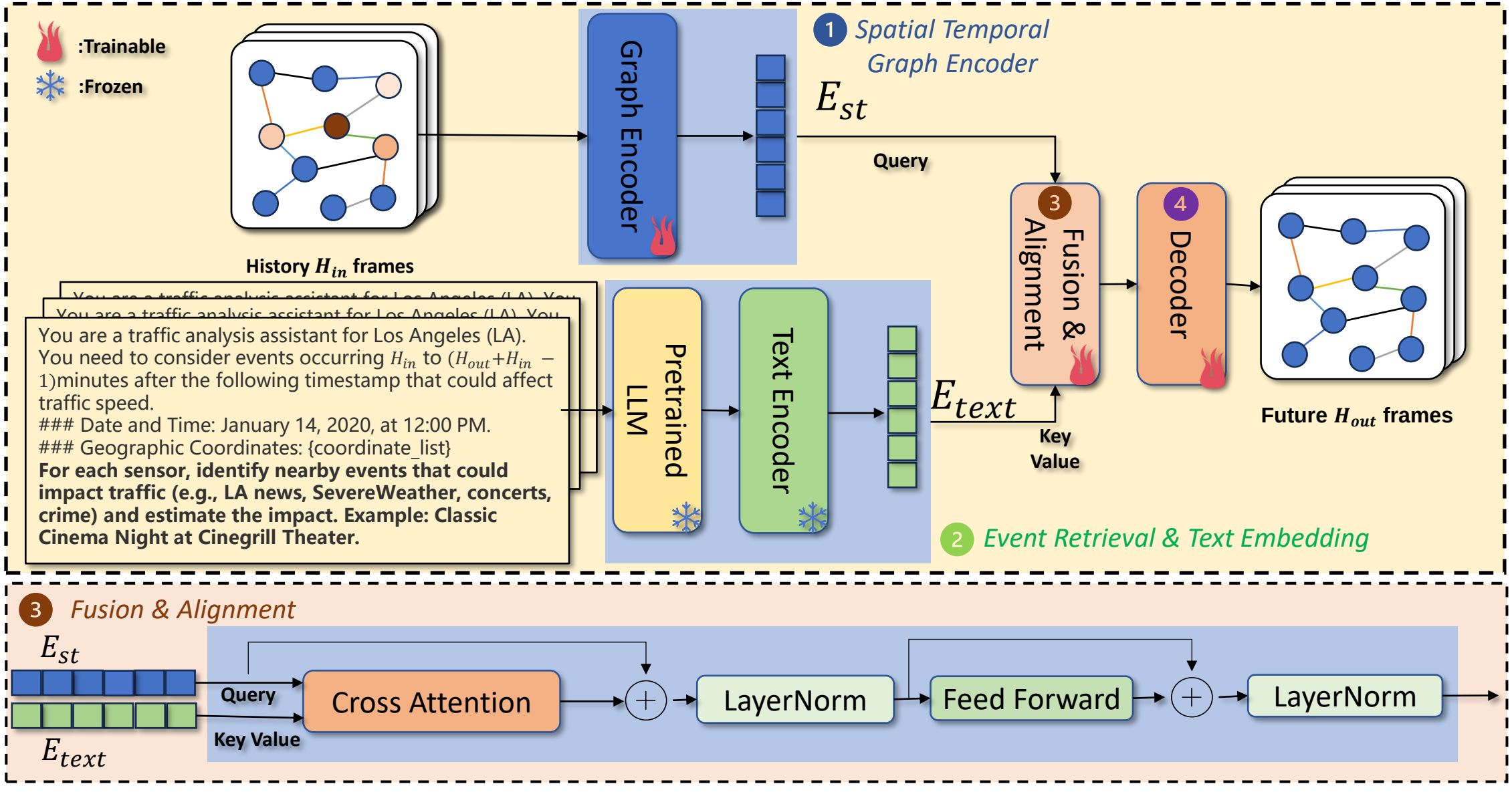
:Trainable
:Frozen
History H_{in} frames
Graph Encoder
1 Spatial Temporal Graph Encoder
E_{st}
Query
You are a traffic analysis assistant for Los Angeles (LA).
You need to consider events occurring H_{in} to $(H_{out}+H_{in}-1)$minutes after the following timestamp that could affect traffic speed.
Date and Time: January 14, 2020, at 12:00 PM.
Geographic Coordinates: {coordinate_list}
For each sensor, identify nearby events that could impact traffic (e.g., LA news, SevereWeather, concerts, crime) and estimate the impact. Example: Classic Cinema Night at Cinegrill Theater.
Pretrained LLM
Text Encoder
E_{text}
Key
Value
2 Event Retrieval & Text Embedding
3 Fusion & Alignment
4 Decoder
Future H_{out} frames
3 Fusion & Alignment
E_{st}
E_{text}
Query
Key Value
Cross Attention
LayerNorm
Feed Forward
LayerNorm