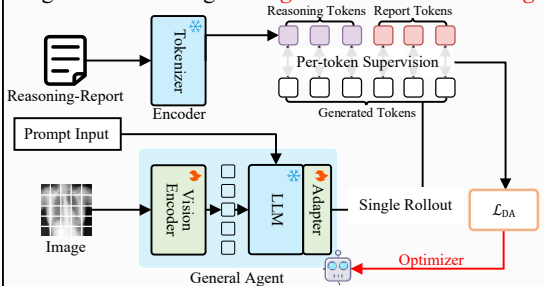
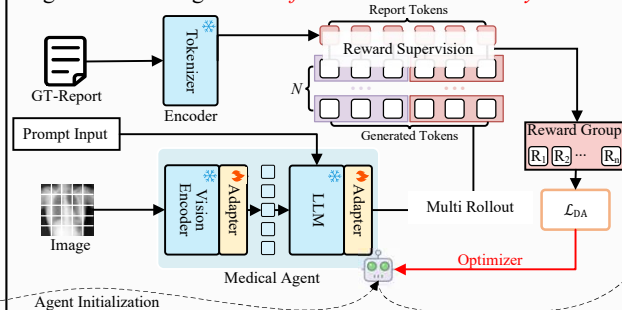


**a) Ternary Reasoning Agent Checker (TRAC)** enables verifiable high-quality reasoning reports

**Stage1: Domain Alignment** grounds domain knowledge



**Stage2: Causal Alignment** enforces causal consistency



**b) Dual-Alignment Learning (DAL)** enables causally aligned medical knowledge injection into verifiable reports

**c) Agent Inference**

