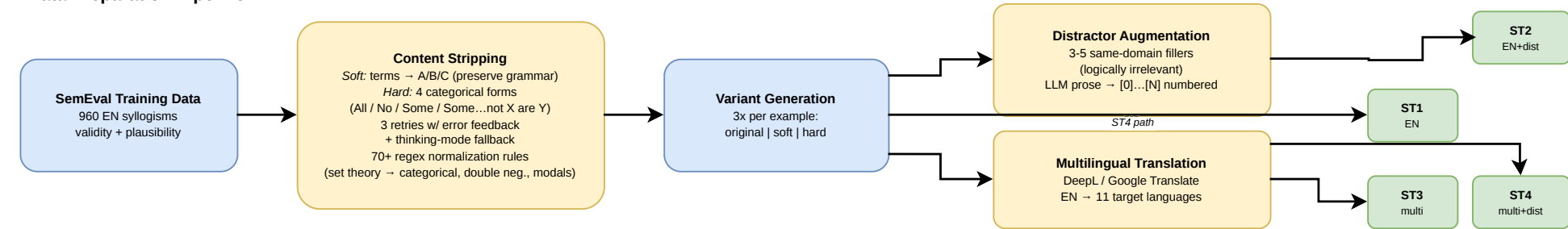
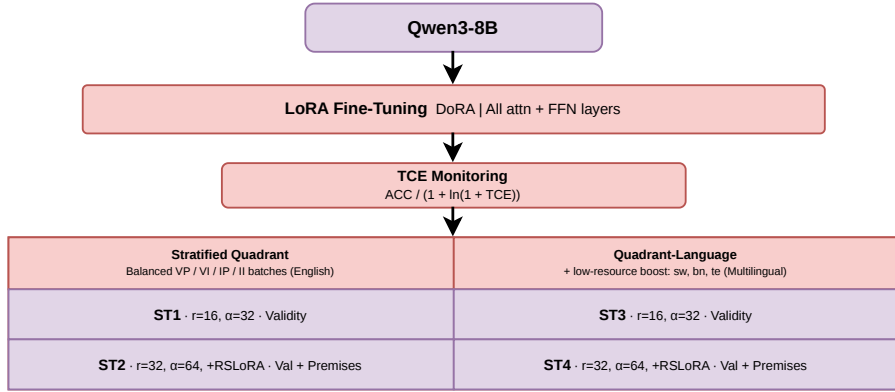


## A. Data Preparation Pipeline

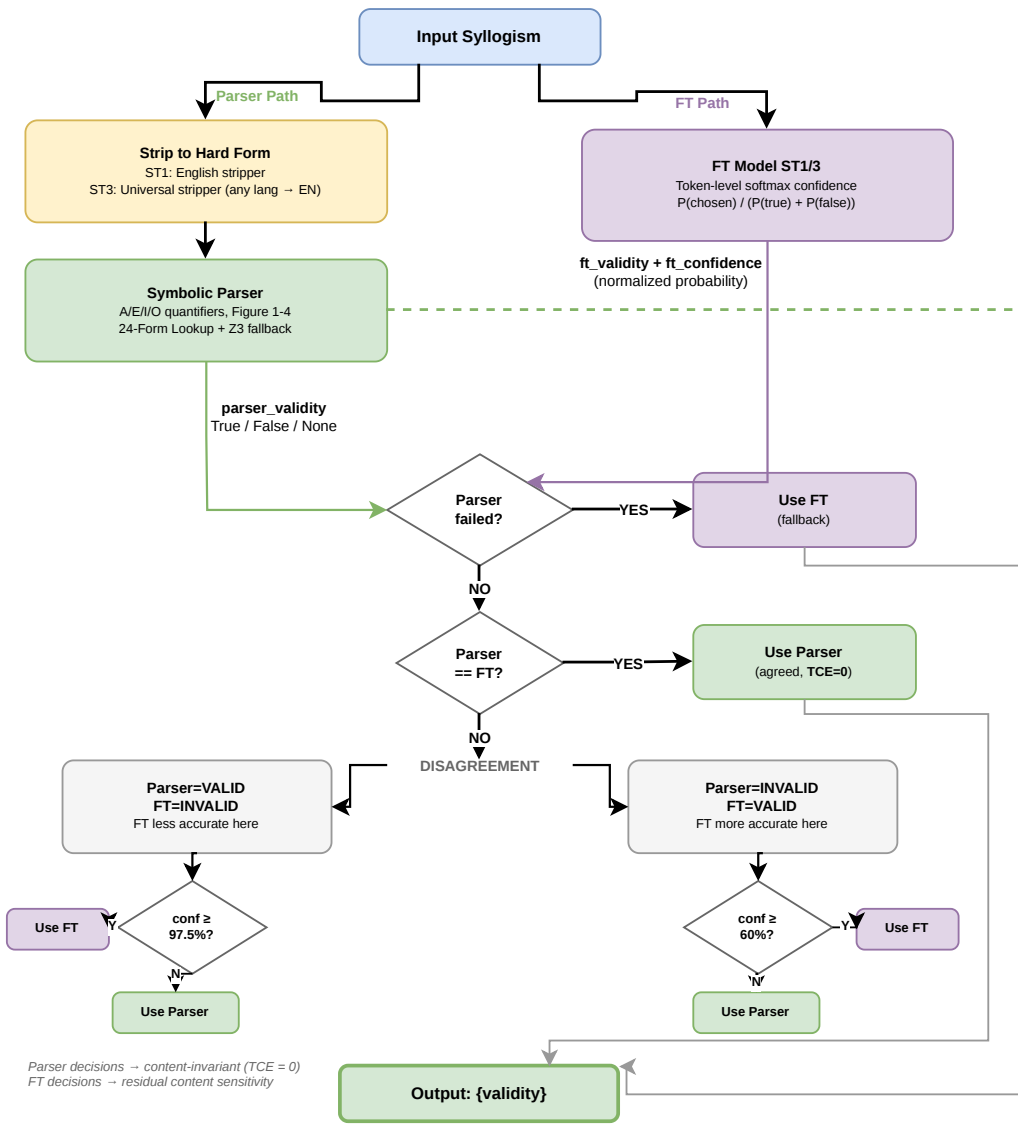


## B. Fine-Tuning System

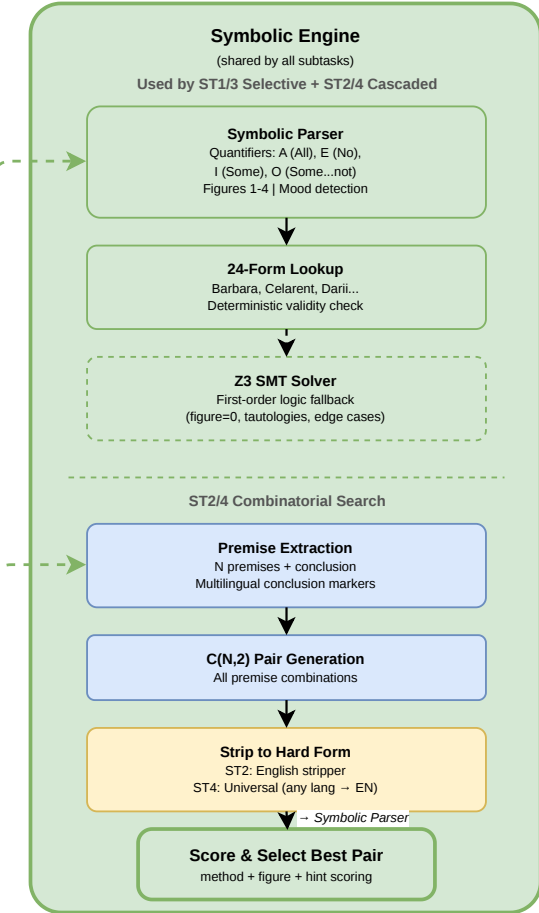


## C. Inference

Subtask 1 & 3: Selective Mode (Parser-primary with asymmetric FT override)



Parser decisions → content-invariant (TCE = 0)  
FT decisions → residual content sensitivity



Legend  
Data / I/O LLM Processing Training  
Symbolic Neural (FT)

Subtask 2 & 4: Cascaded Verifier (FT prediction + symbolic verification)

