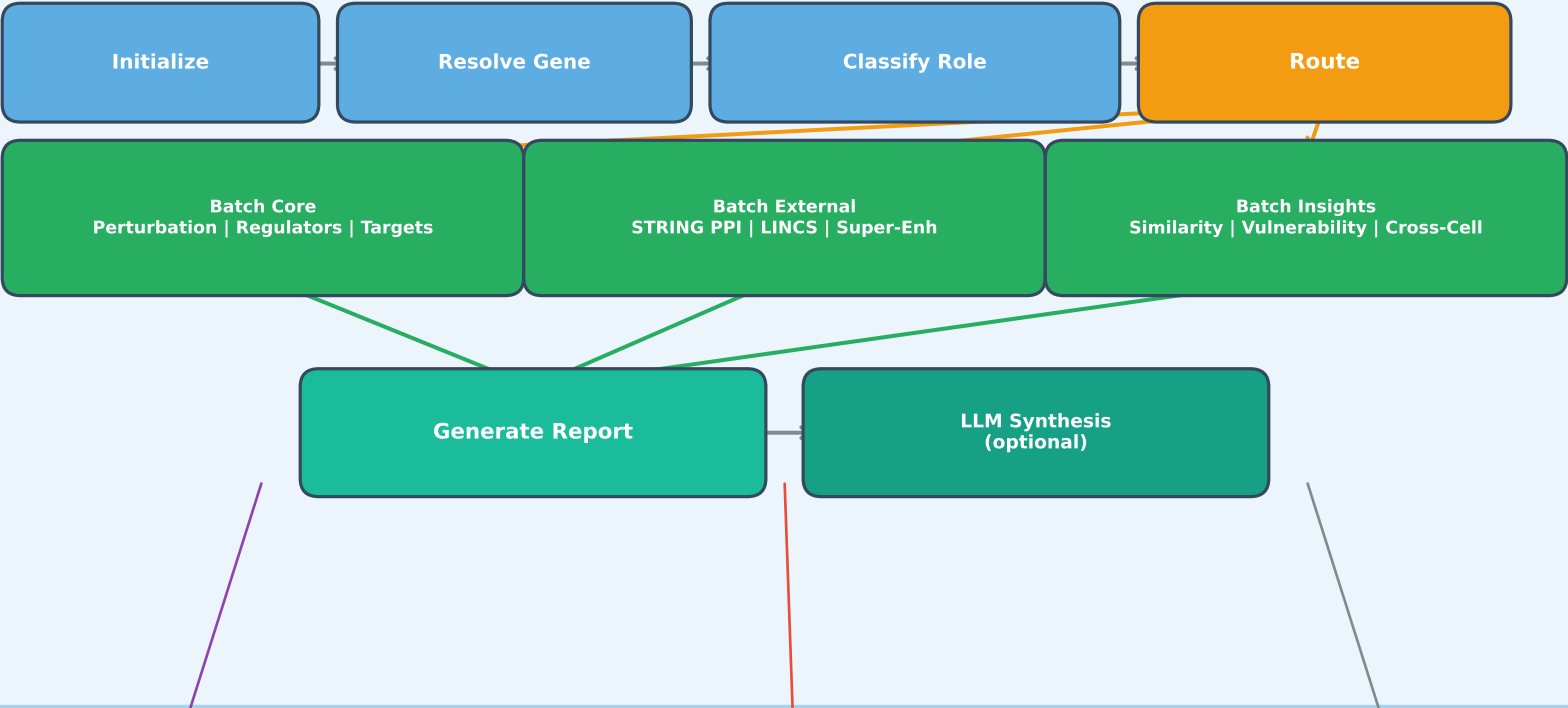


MCP Client (Claude Desktop / LLM)



CASCADE LangGraph MCP Server

LangGraph StateGraph Workflow



Core Tools
perturb.py
model_inference.py
cache.py
gene_id_mapper.py

External Data
STRING DB
LINCX L1000
dbSUPER
Ensembl API

Data Assets
10 Regulatory Networks
GREMLN Checkpoint
Gene ID Cache