Provide one *safety-critical scenario*.

The ego is driving on a straight road, and the car in front brakes suddenly when the ego approaches.

Few-Shot examples +

Extract the adversarial *behavior* of the surrounding agent, road *geometry* and the relative *spawn positions* between the ego and the adversarial agent?

Behavior: the adversarial car suddenly breaks when the ego approaches.

Geometry: a straight road.

Spawn Position: the adversarial car is in front of the ego.

(a) Interact with LLMs

"Sudden brake when the ego is within some distance" (b) Retrieval Process

Scenic code:

Default Setting

model scenic.simulators.carla.model EGO MODEL = "vehicle.lincoln.mkz 2017"

BEHAVIORS ### behavior EgoBehavior():

behavior AdvBehavior (AdvSpeed):

do FollowLaneBehavior(EgoSpeed)

do FollowLaneBehavior(AdvSpeed) interrupt when withinDistanceToAnyObjs (self, AdvBreakingThreshold): take SetBrakeAction(1.0)

GEOMETRY ### lane = Uniform(*network.lanes)

SPAWN POSITIONS ### SpawnPt = OrientedPoint on lane.centerline

(c) Assemble Scenic Snippet





(d) Render Simulation in CARLA

Sentence Encoder

Retrieval database

Spawn Position: Top ...

Spawn Position: Top 1

Geometry: Top ...

Geometry: Top 1

Behavior: Top ...

Behavior: Top 1

Predefined behaviors, geometry,

spawn point, entity.