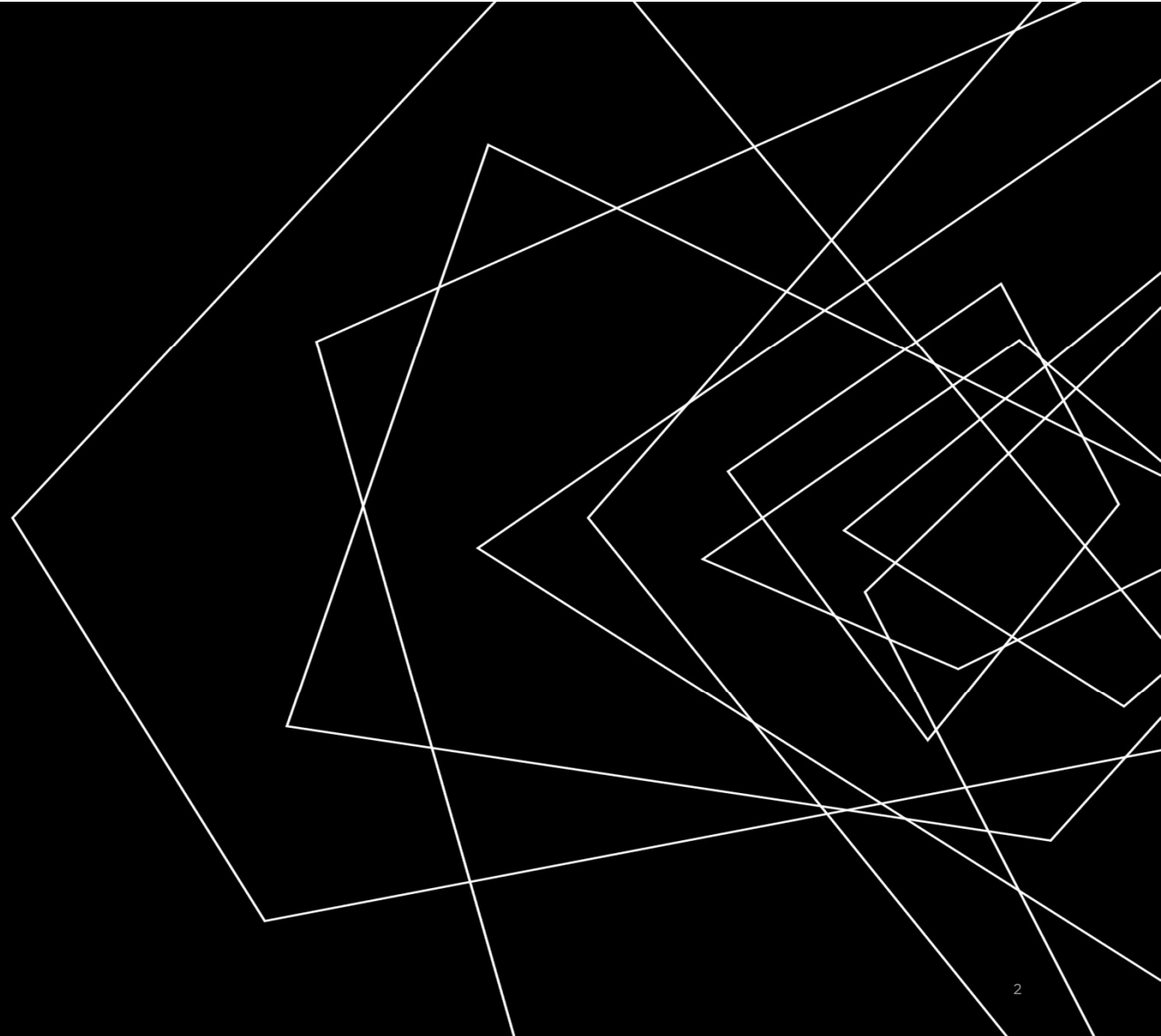# HERE CHICAGO HACKATHON – TEAM CHICAGOFAST

RISHIT CHATTERJEE, KEISHA KABA, SHOBHIT SINHA

PROBLEM

- WSIGN406 is triggered when motorway signs are detected within 20m of roads flagged with Pedestrian = TRUE.

- This causes false positives where data misalignment or topology misassignment exists.
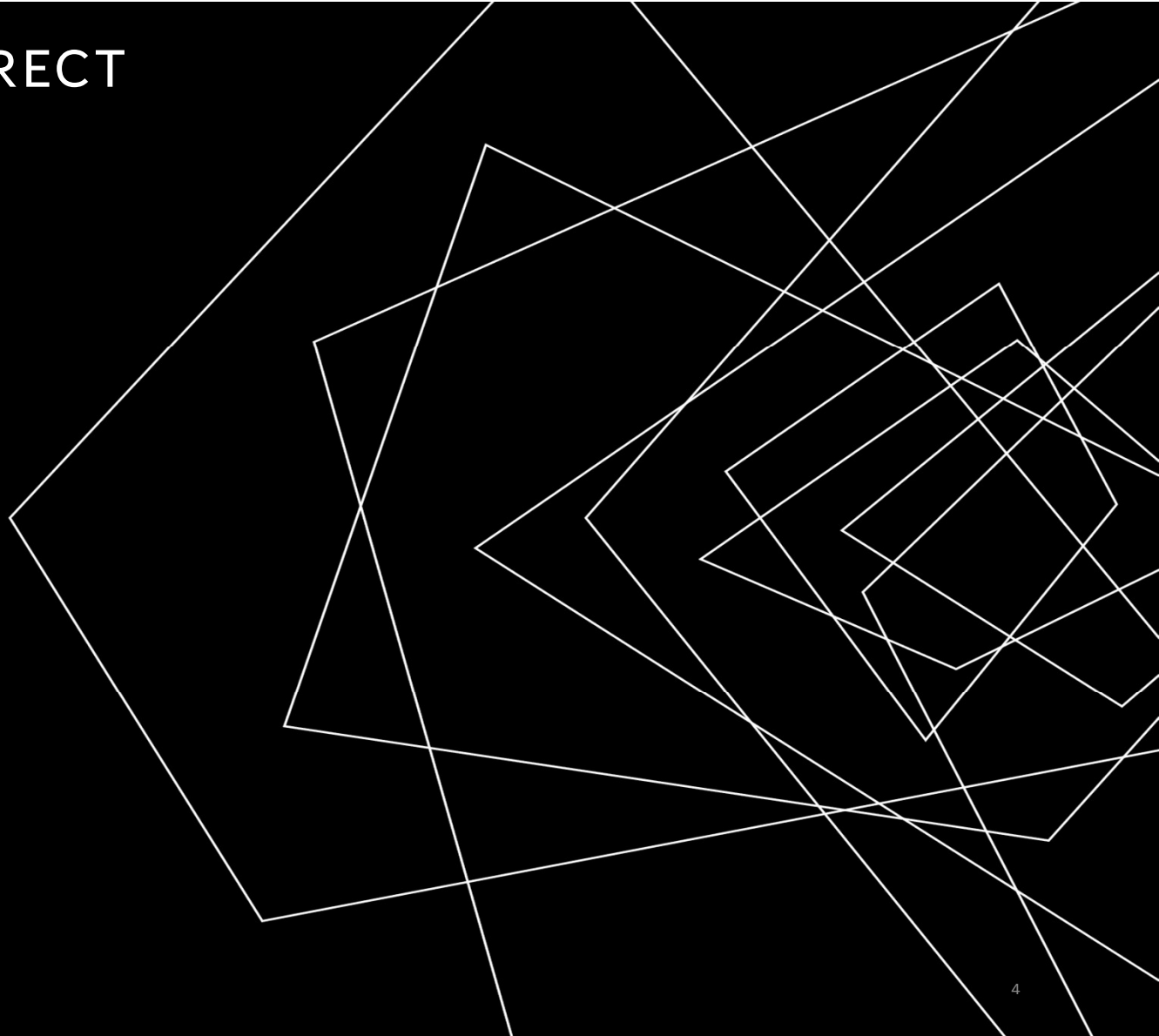
SCENARIO 1: SIGN MAY NOT EXIST ANYMORE

- Using the probability of existence score that is assigned in the data, we check if the value is more than 0.7.

- If the value is less than that, it is likely that there is not a sign in that location in reality.

SCENARIO 2: INCORRECT ROAD MATCHING

- Segment topological data with motorway & pedestrian flags.

- Generate a simplified CSV with relevant attributes.

- For each WSIGN406 sign:

- Calculate perpendicular distance of the sign to the intersection point of the nearby roads.

- Use tile bounds to find closer roads.

- If closest motorway is not assigned, it's a misassignment and the sign should be assigned to the nearest motorway.

- If no motorway nearby, mark as isolated case.

SCENARIO 3: ACCESS SPECIFIER MAY BE INCORRECT

- Perform average speed check with higher thresholds.

- If average speeds are high → Too unsafe for pedestrians, set Pedestrian = FALSE.

SCENARIO 4: GENUINE EXCEPTION

- Mark this as a legitimate exception.

- Exclude from future WSIGN406 violation checks.

THEORIZED PIPELINE