Case study

- 1. Specify Criteria (Model architecture, Behavior, Daat diversity)
- 2. Assume we have summarized input set (in this case we assumed random samples but uniformly distribute among all classes let say 50 samples in each class)
- 3. We have valid test cases using gradient based generator (let say epsilon 0.1)
- 4 Build a probabilistic graph to closely examine the diversity (fine grain) of our data to identify which areas are not performing well.

Global

P(System=R| P1,P2) System P(property=R|C0,C1,C2..C9) Property2 Property1 P(C=R|S1,S..S50) Local and Class 1 Class 9 Coverage Class 0 Class 9 Class 2 Class 8 **Assessment** Class 1 Class 8 P(S=R|V) Samples Samples Samples Samples Samples Samples Samples Samples GAN Random noise **Test Cases Gradient based Test Generation Method**