PROJECT 44: MIXED STATE DISCRIMINATOR

Aziz NGOUEYA

mentor: Helena ZHANG

DESCRIPTION

- The standard discriminator separates only |0> and |1> states

- The Mixed discriminator outputs are 0 and 1 but also a mixed state.

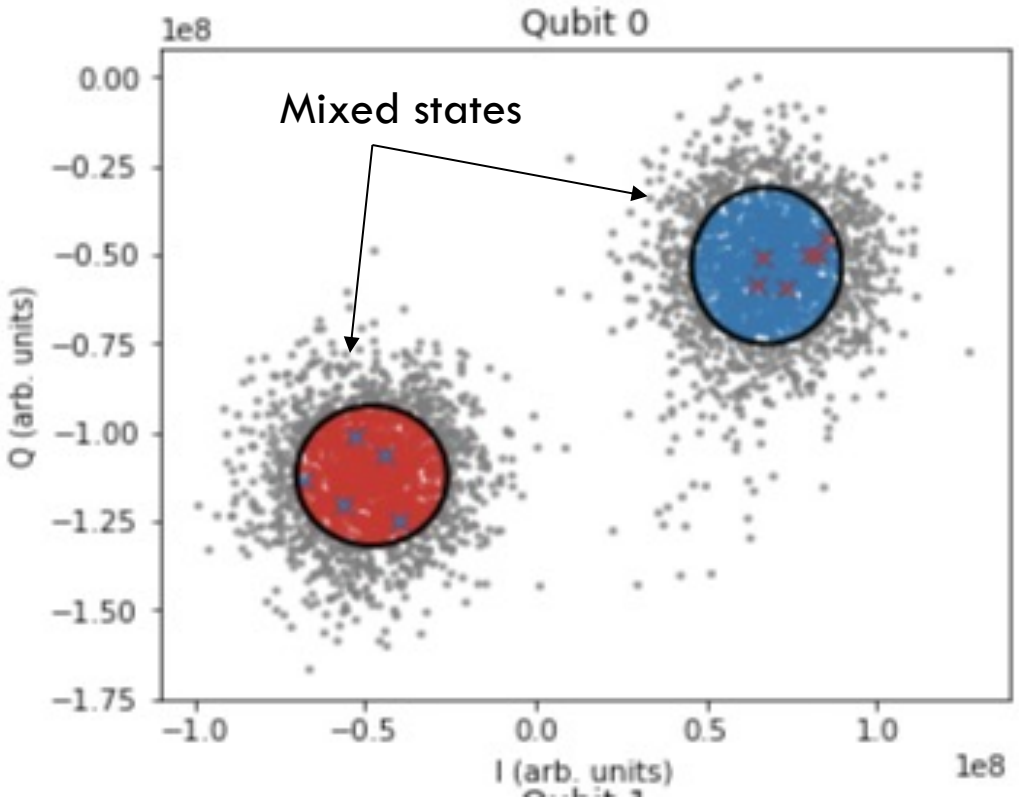
- The Mixed state is a probability vector over the possible outcomes(0 and 1)

- Various ways to implement it.

Why is this useful?

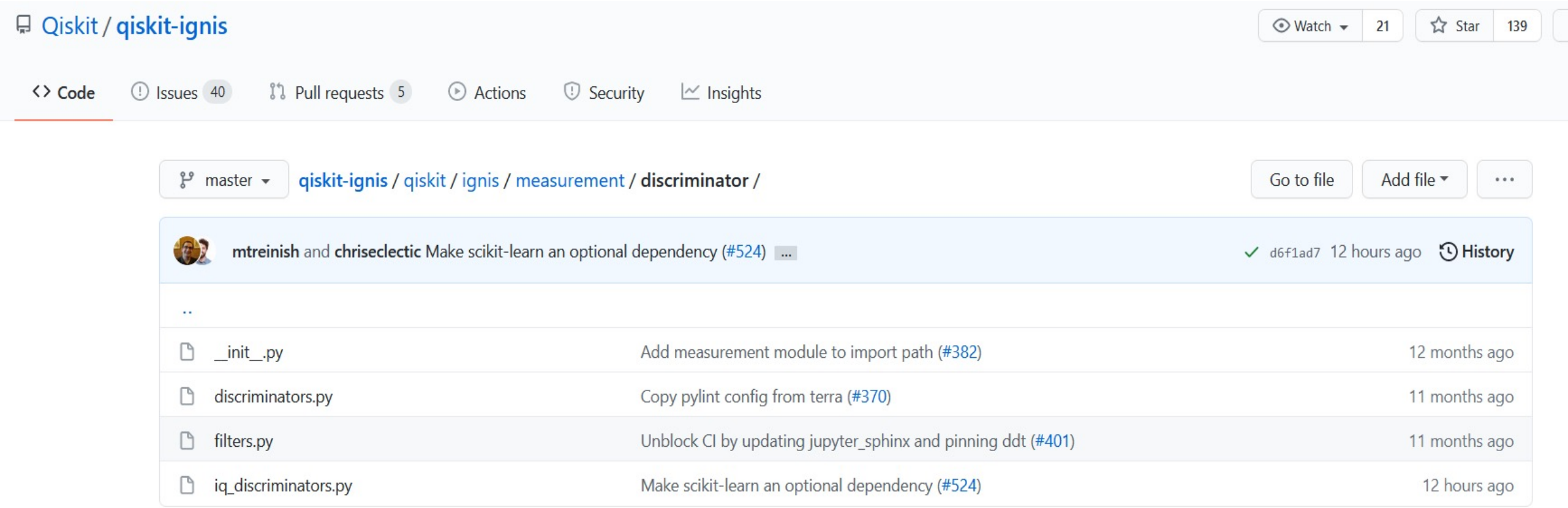
- Comparing the results with the standard discriminator

- Measurement error mitigation



DELIVERABLE

Pull request on ignis module to take into account the mixed state discriminator



PROGRESS

- Implementing a discriminator based on the distance to the centroids.

- Construct a mixed state distribution using a gaussian Mixture.

Next steps:

- Adapt my code with ignis Class.
- Find a suitable format for mixed states.