

The breast cancer dataset may contain biases such as underrepresentation of certain demographic groups, specific age ranges, or rare cancer types. If the model is deployed in a company for priority prediction, teams whose patterns appear less frequently may receive inaccurate priority scores. This could lead to unfair treatment, resource misallocation, or overlooked high-risk cases. Fairness tools like IBM AI Fairness 360 (AIF360) can help detect and mitigate such biases. Using its metrics, developers can evaluate whether the model disproportionately favors or disadvantages certain groups. It also provides algorithms such as re-weighting, data balancing, and adversarial debiasing to improve fairness. Incorporating these techniques ensures more equitable and trustworthy predictions.