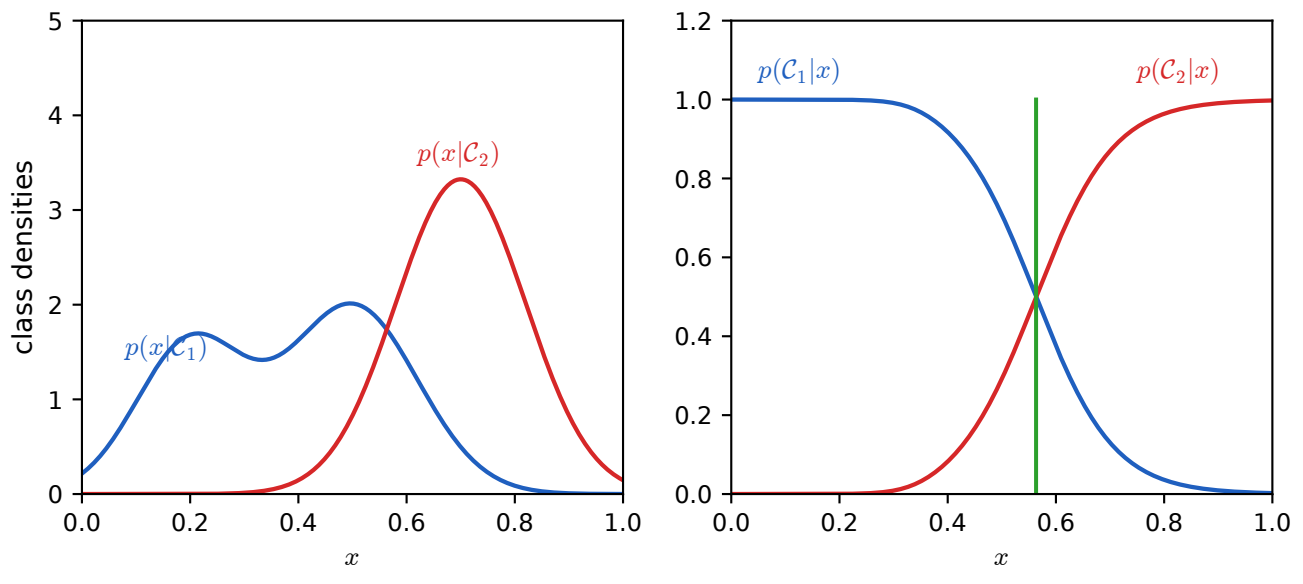

class densities
$p(x|\mathcal{C}_1)$
$p(x|\mathcal{C}_2)$
x
$p(\mathcal{C}_1|x)$
$p(\mathcal{C}_2|x)$
x