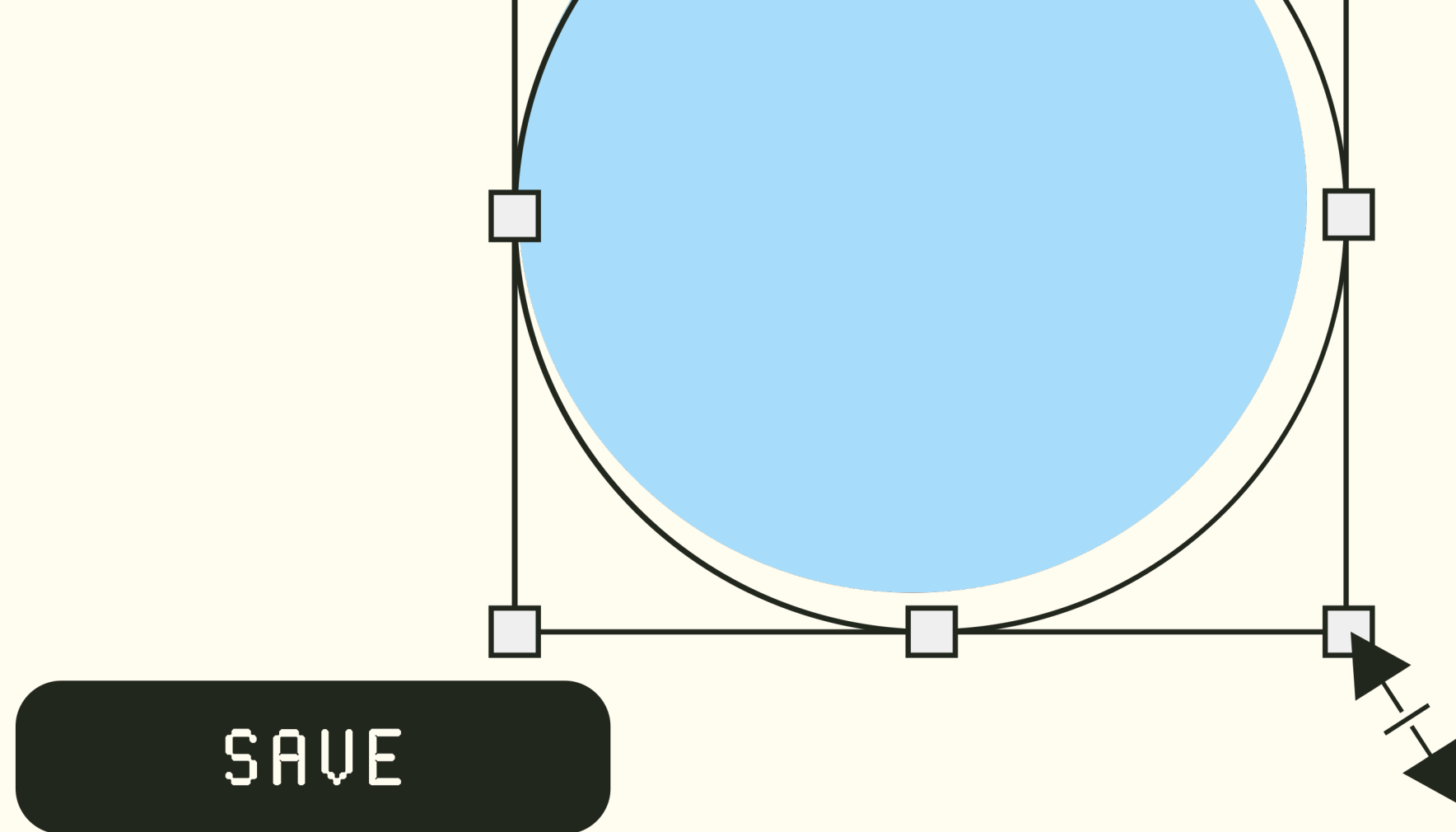
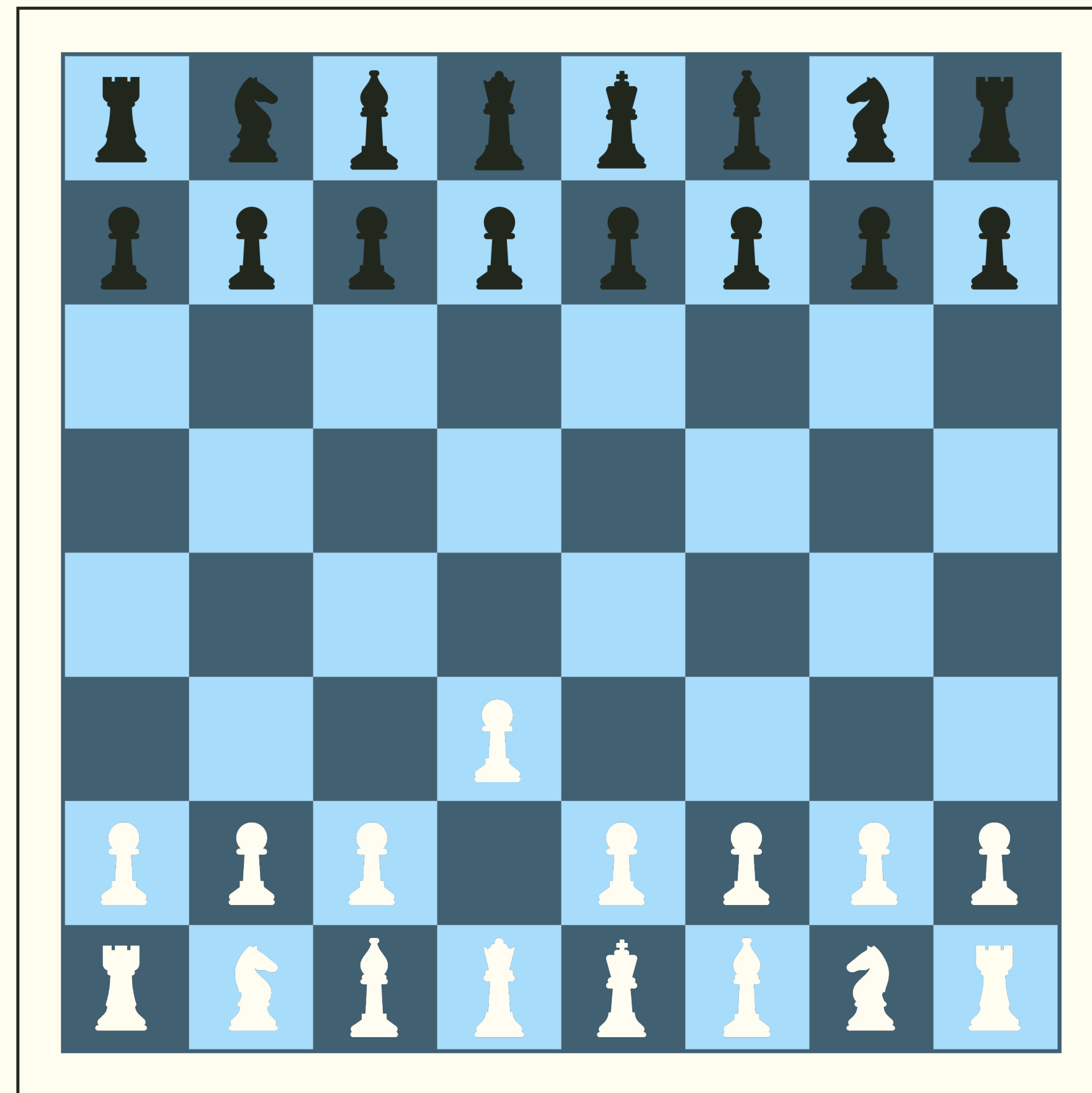
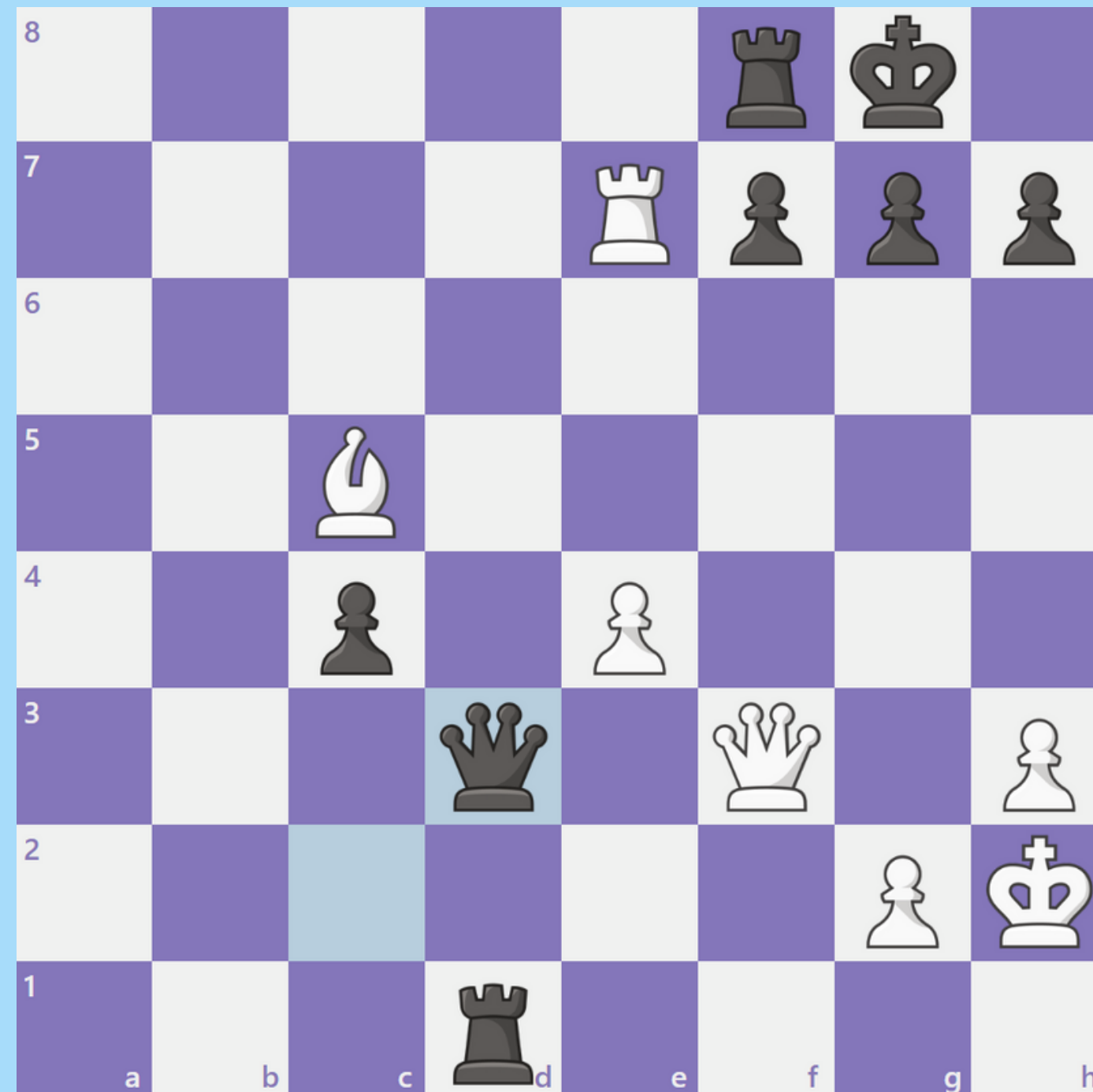




MAGNUS VISION



¿Quién va ganando?



Objetivos



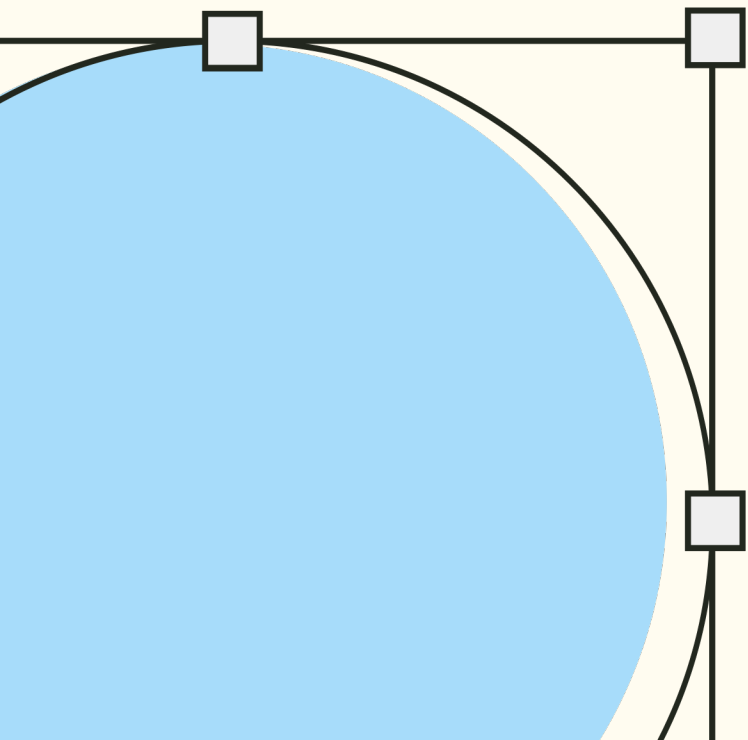
Lograr clasificar piezas de ajedrez según su foto frontal



Separar efectivamente piezas por color y cuadros vacíos



Revelar con precisión que color de piezas van liderando la partida



Modelos necesarios



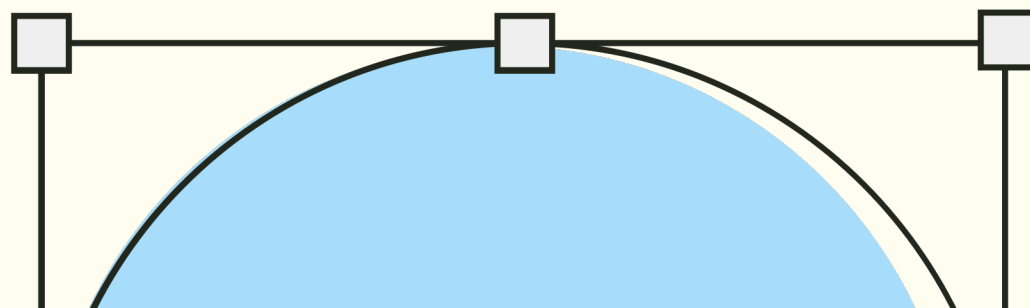
**Modelo que clasifica cuadros con pieza
y sin pieza**



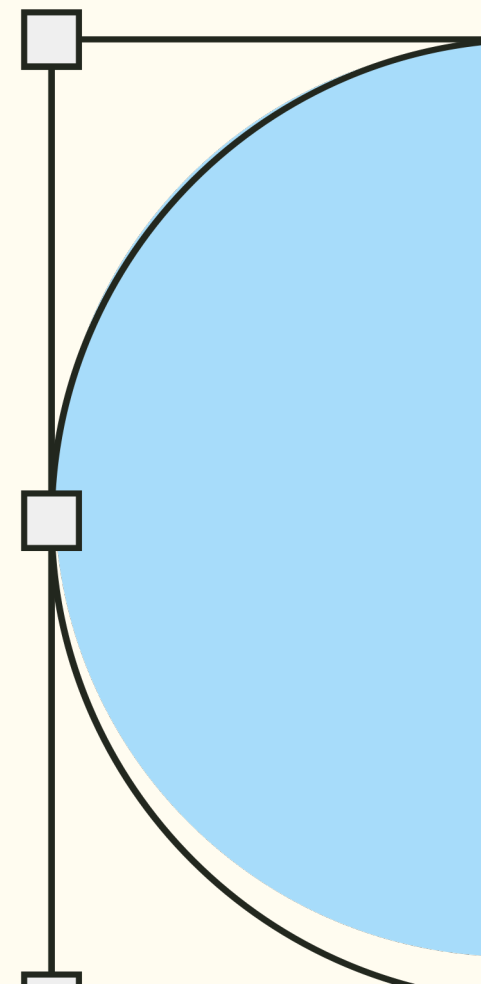
Modelo que clasifica piezas



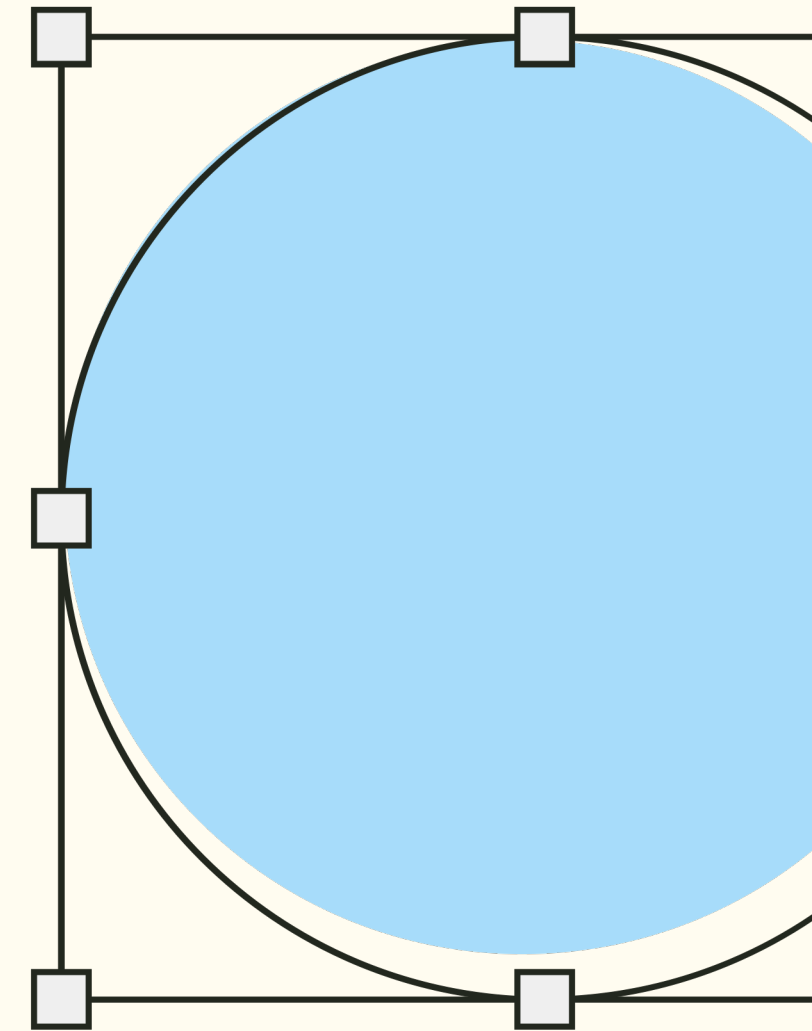
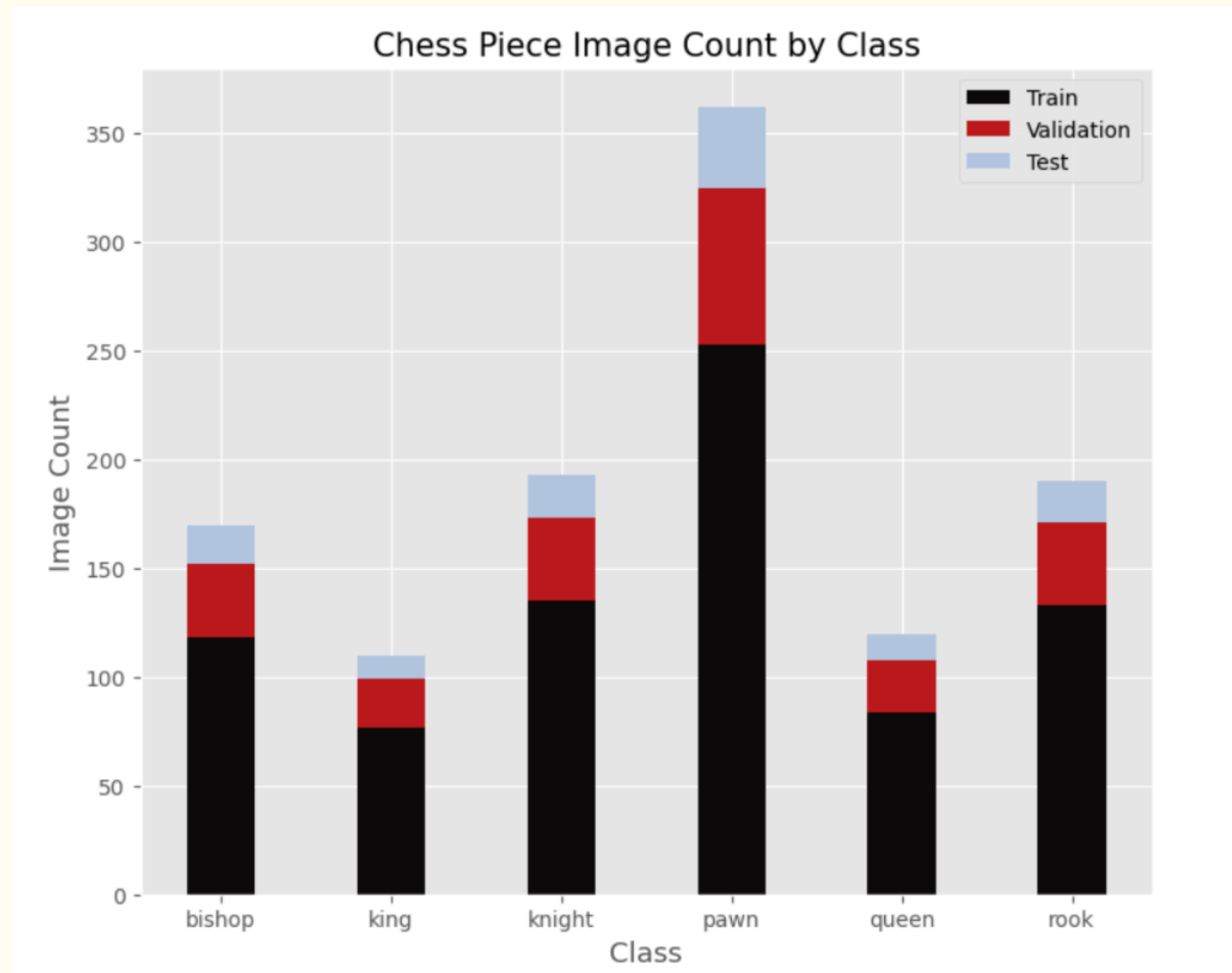
Modelo que clasifica color de pieza



Análisis exploratorio Piezas



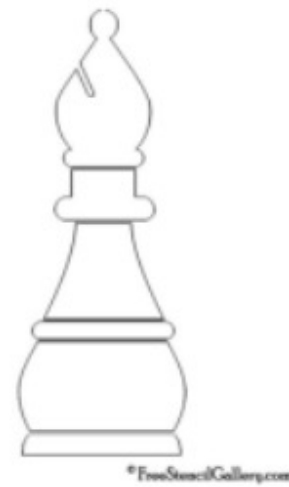
Análisis exploratorio Piezas



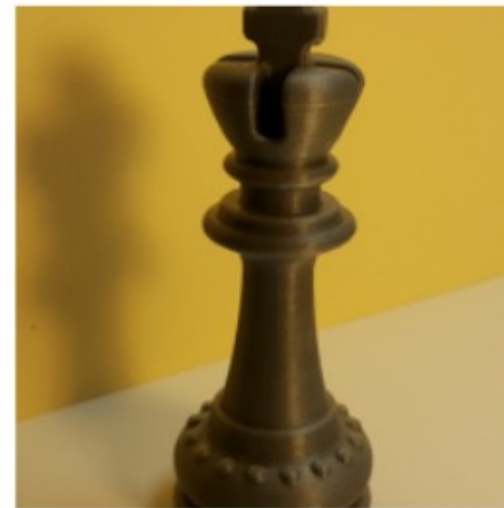
Análisis exploratorio

Piezas

bishop



king



knight



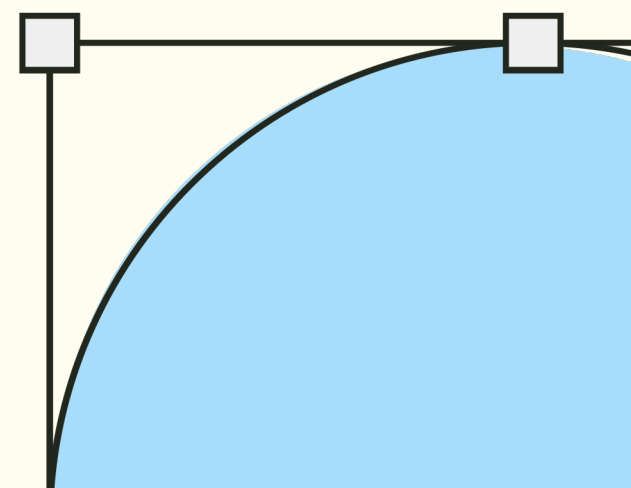
pawn



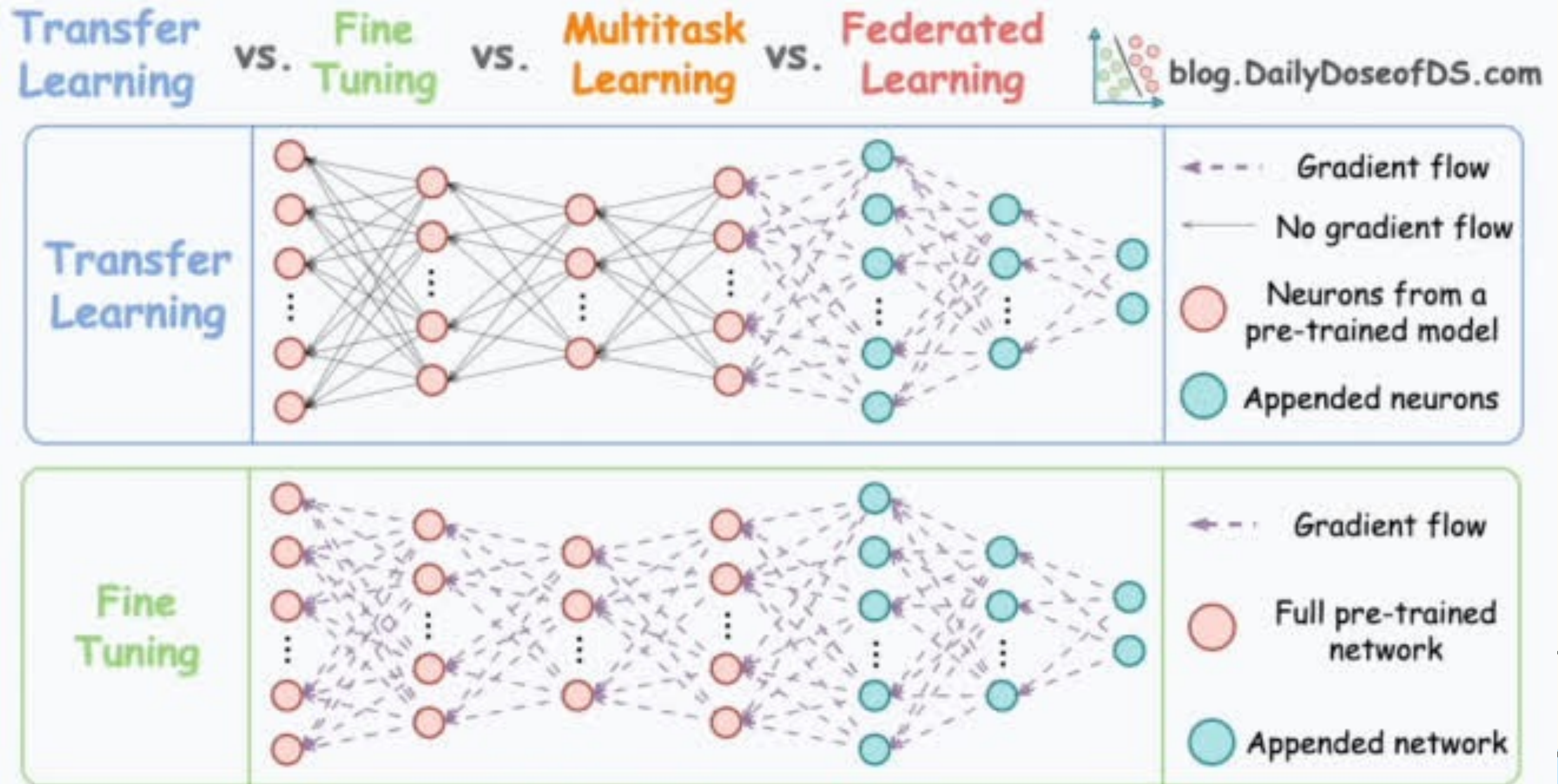
queen



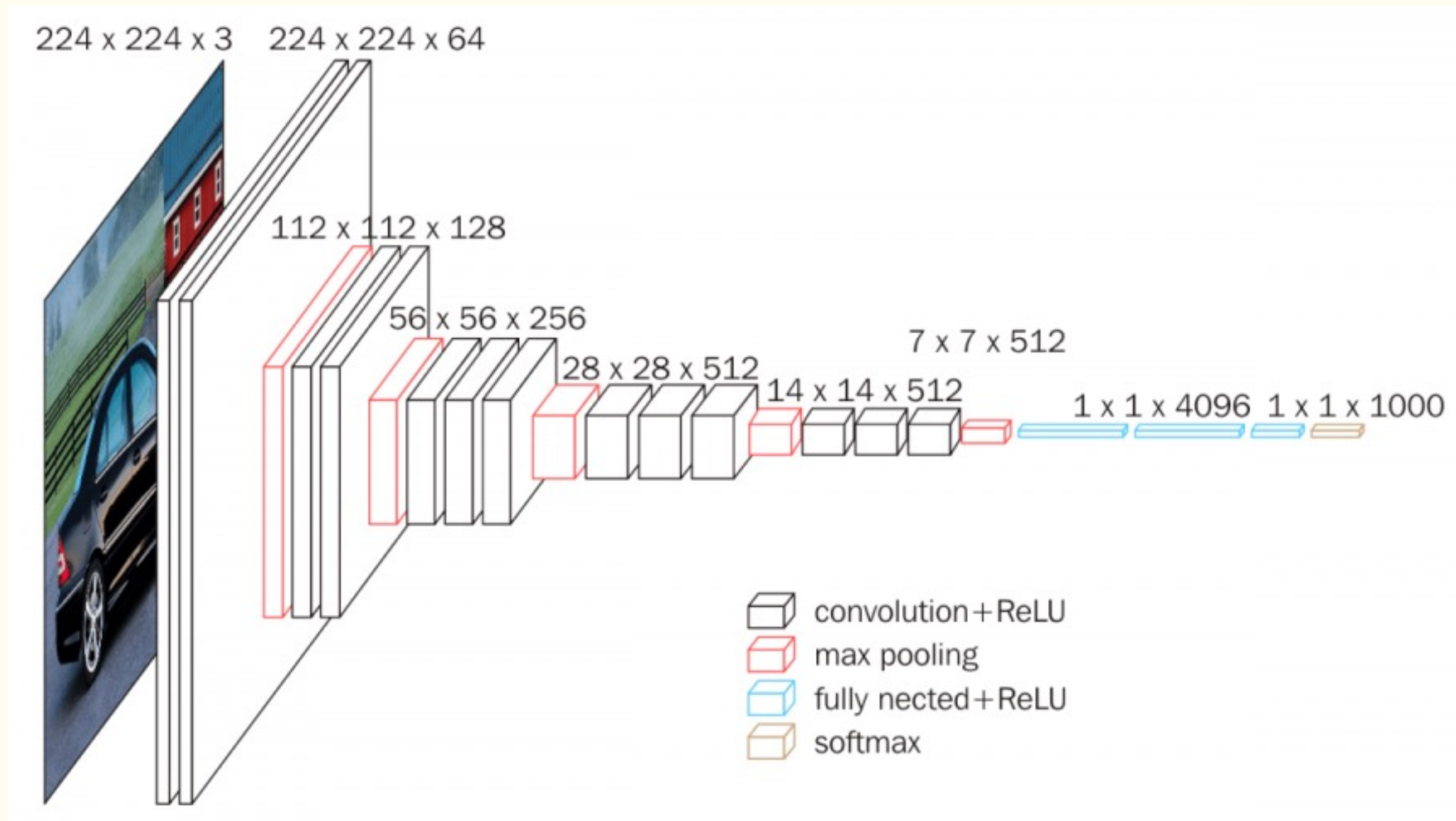
rook



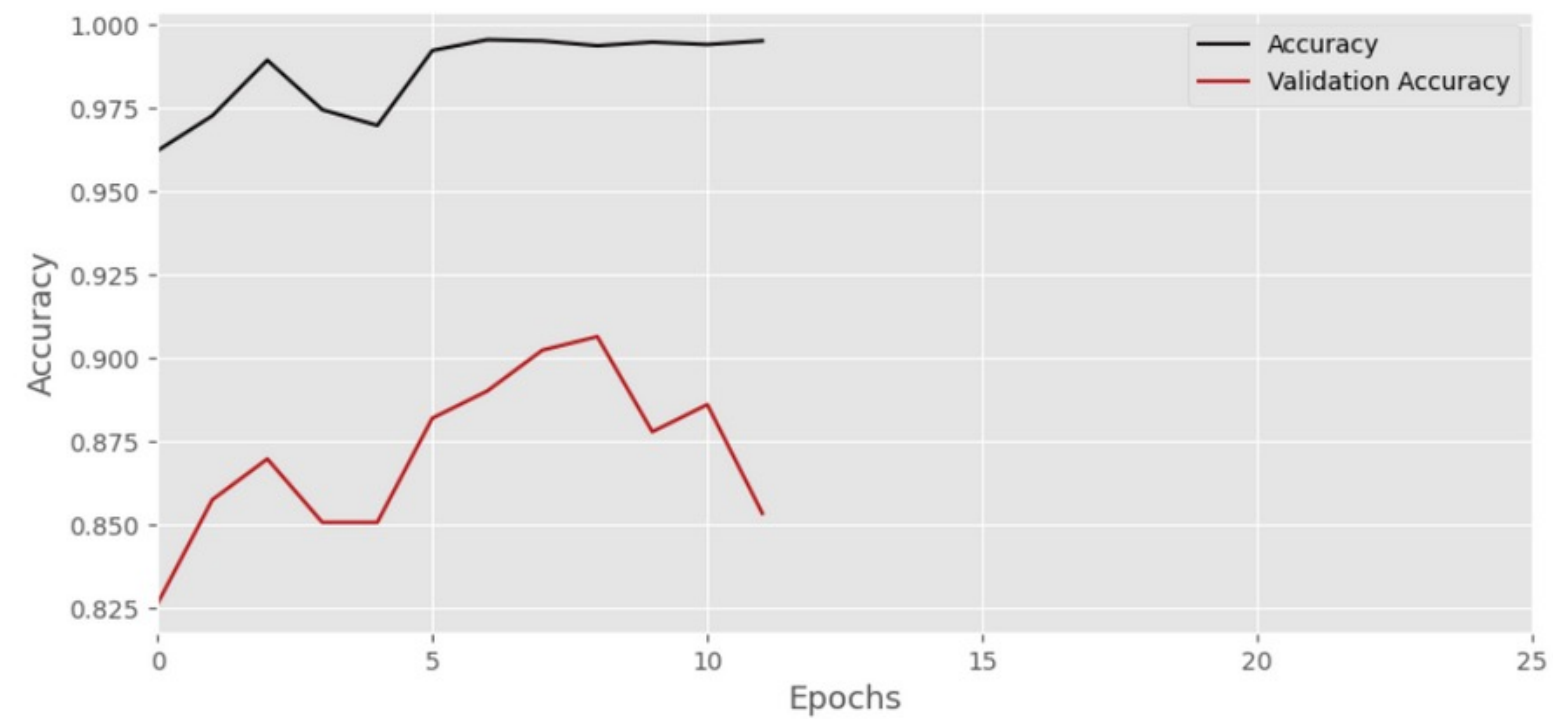
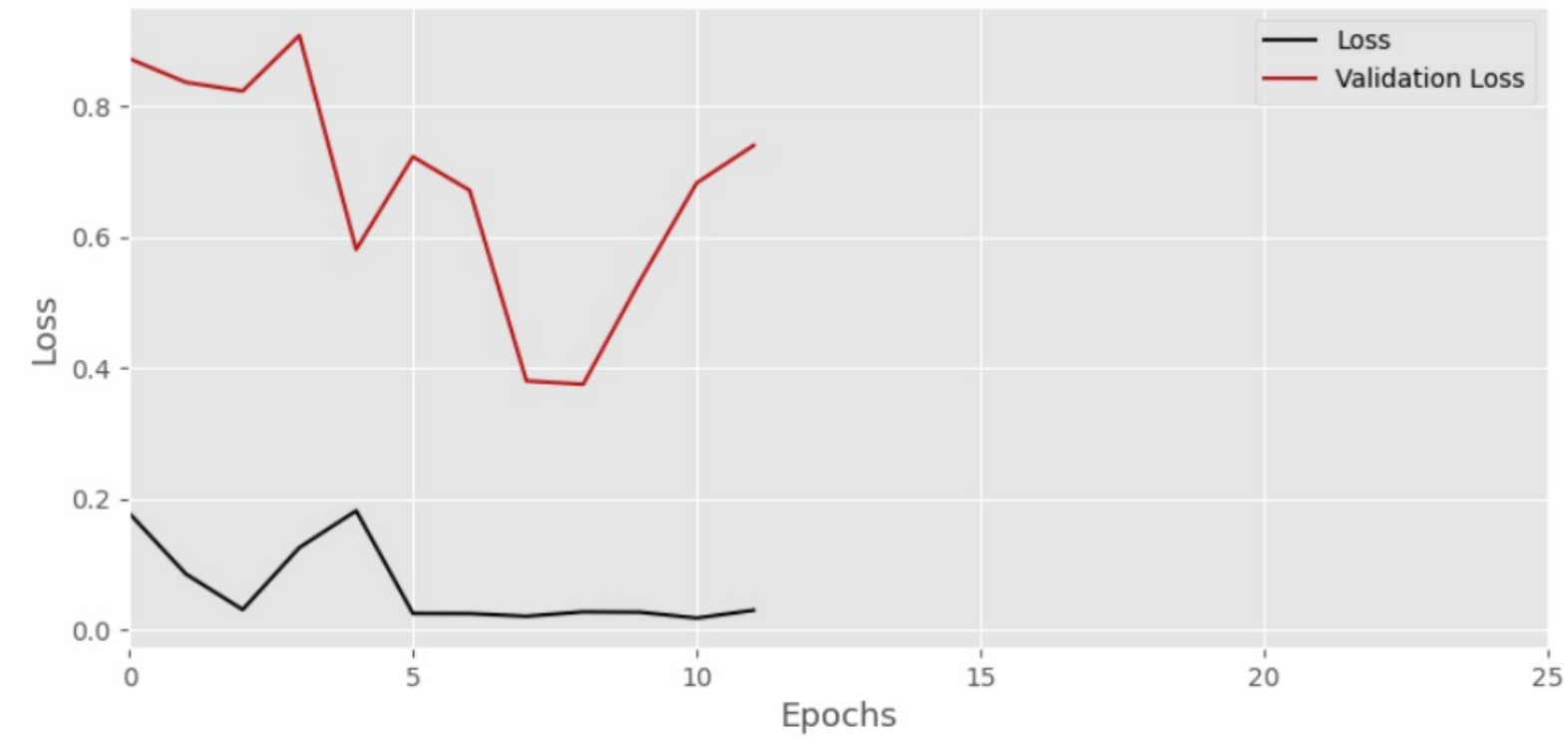
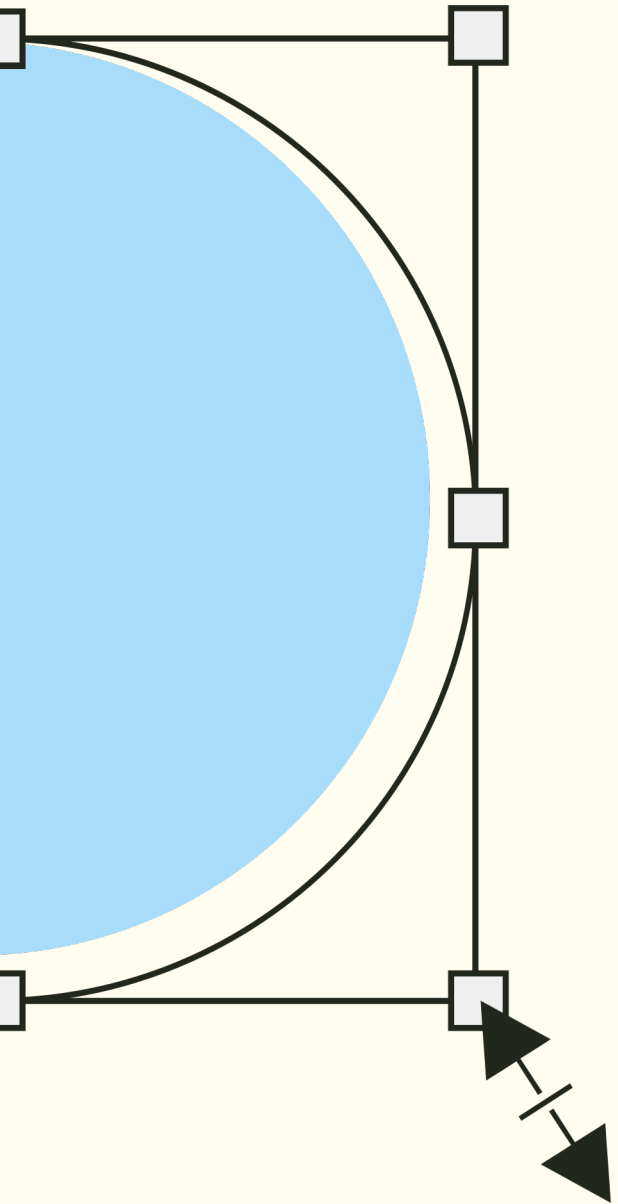
Modelo Elegido



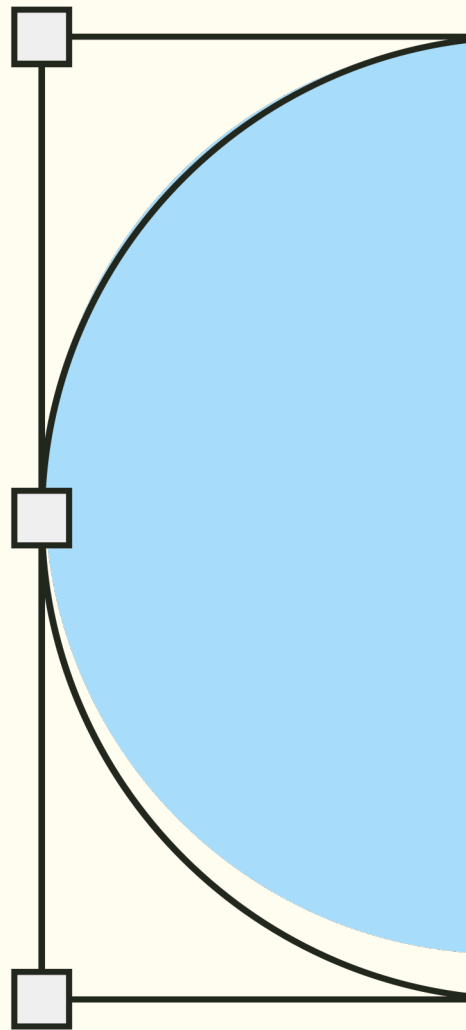
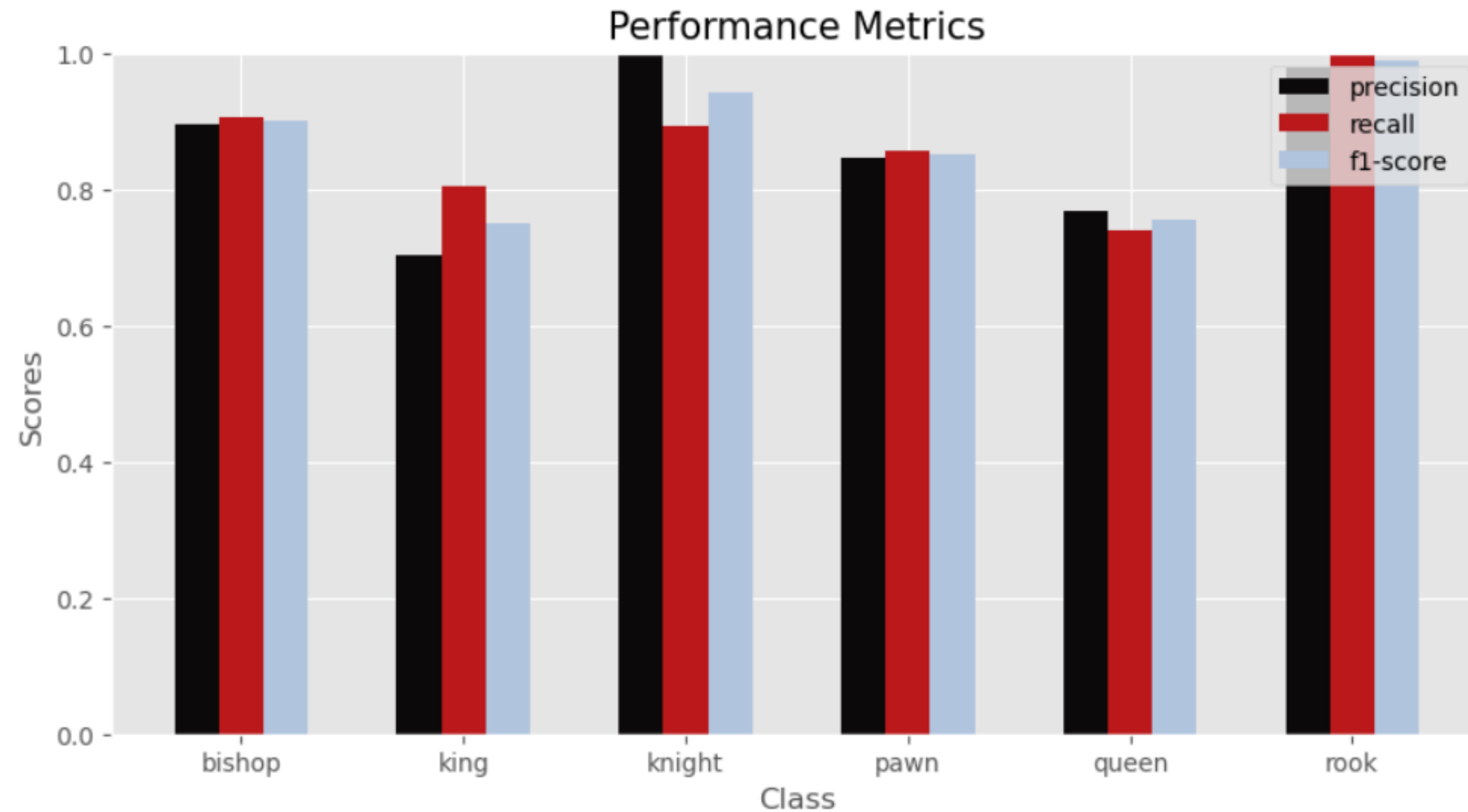
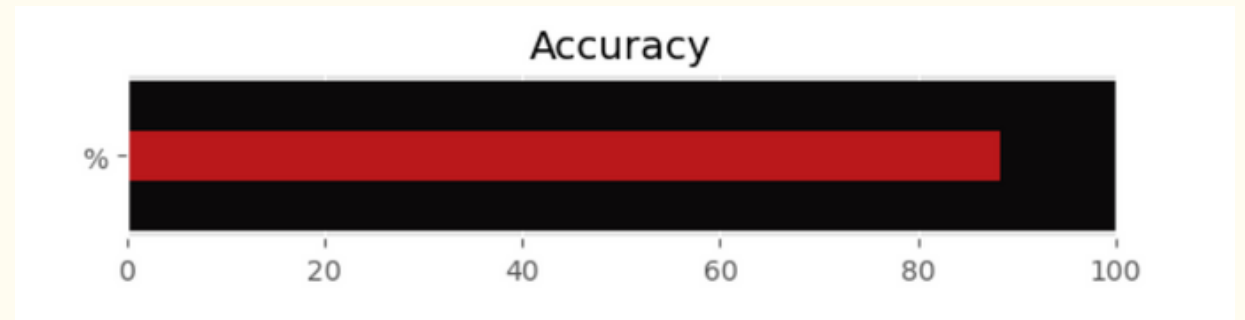
VGG19



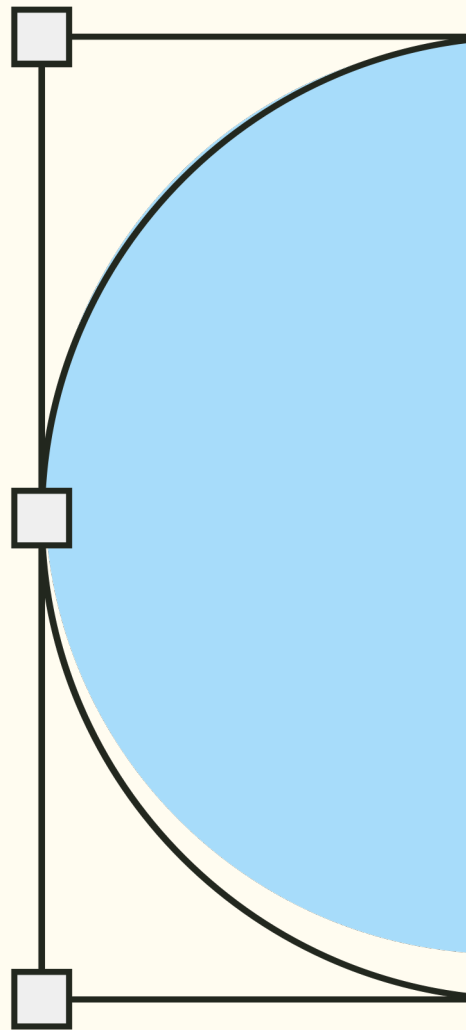
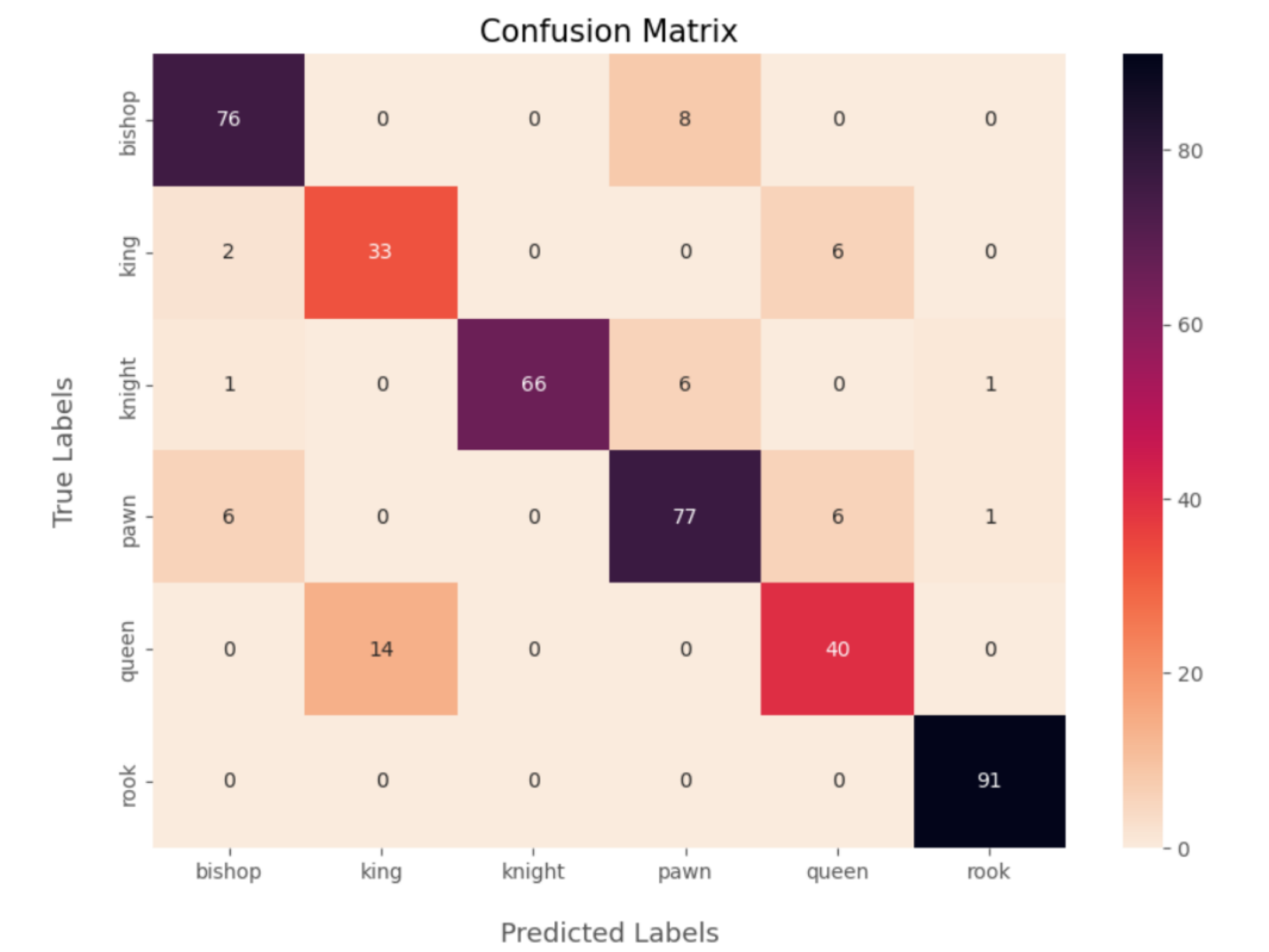
Modelo Pieza



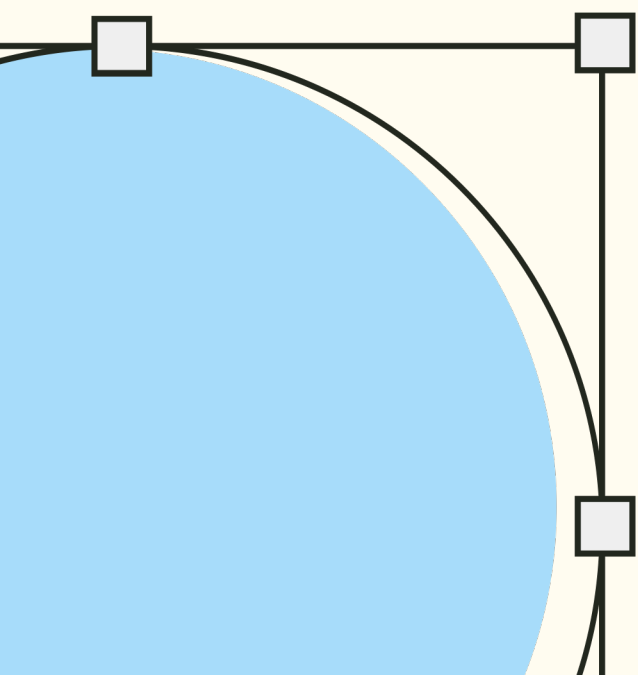
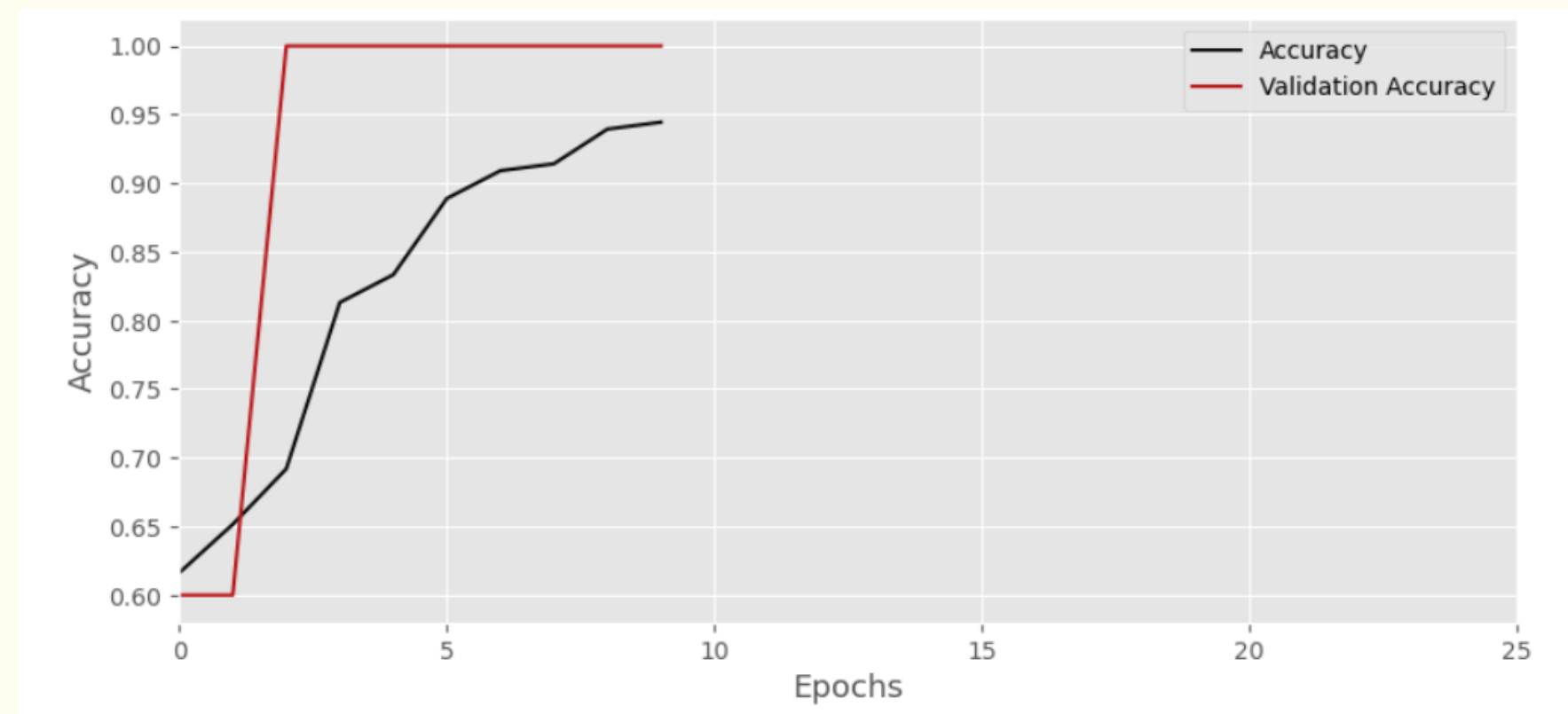
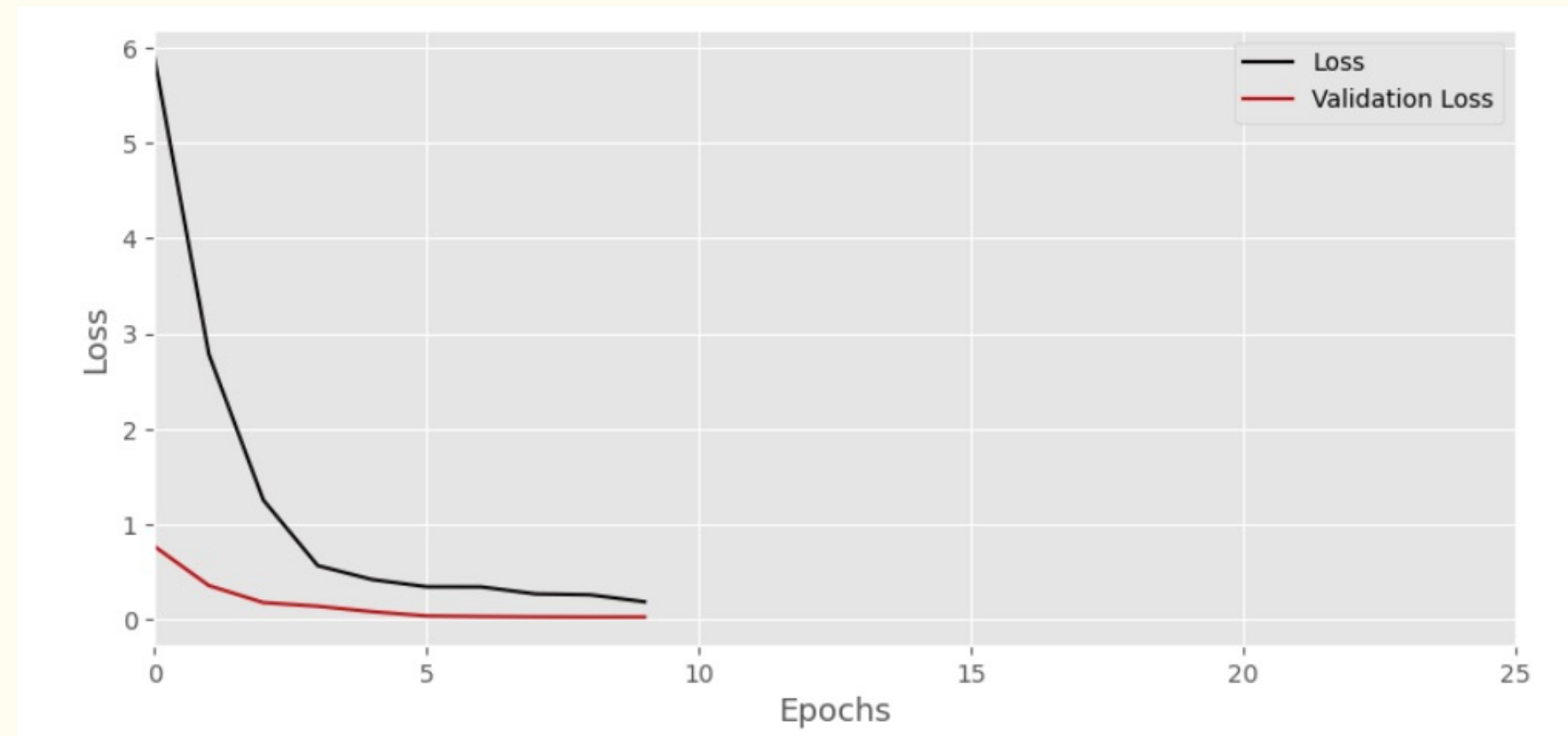
Resultados Pieza



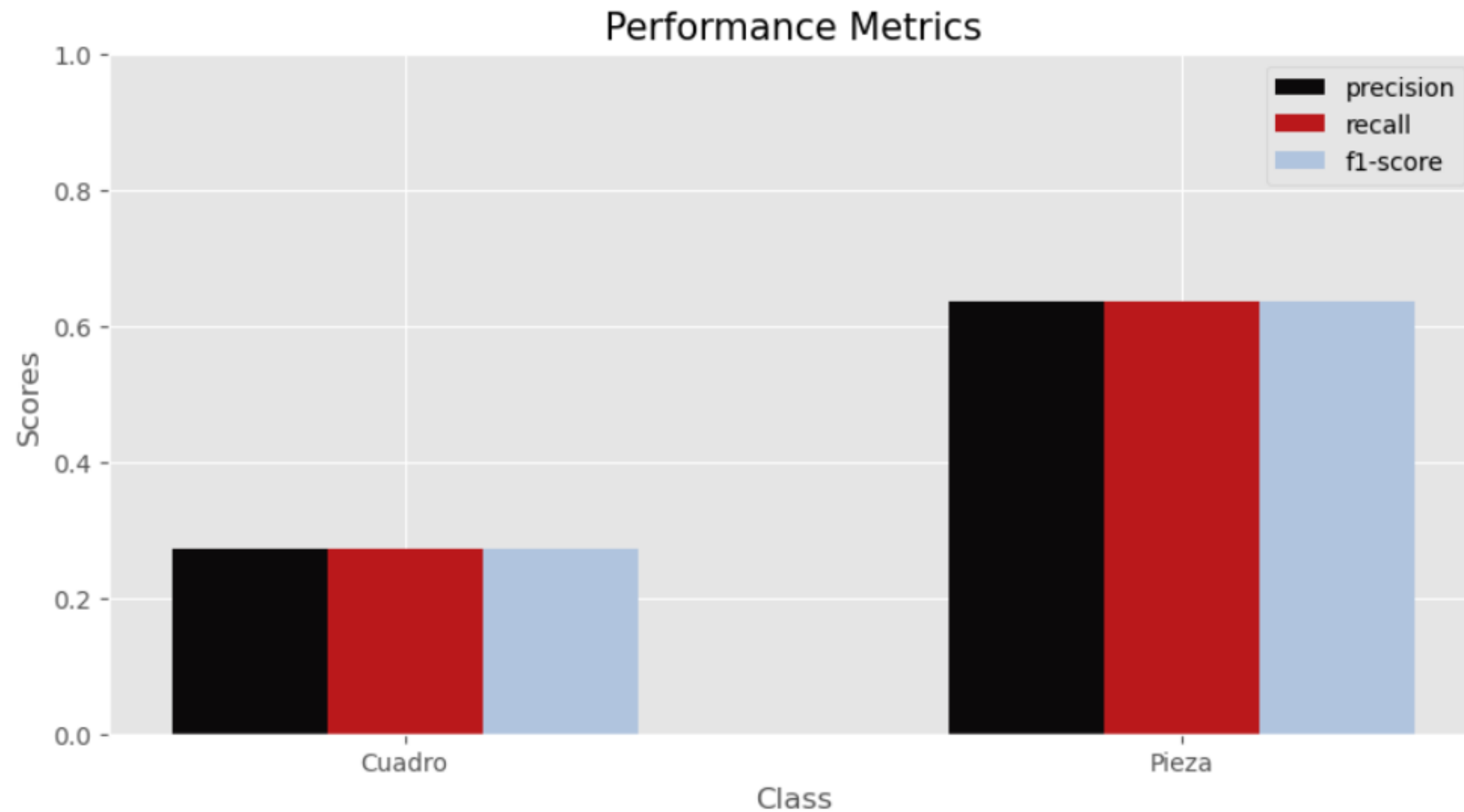
Resultados Pieza



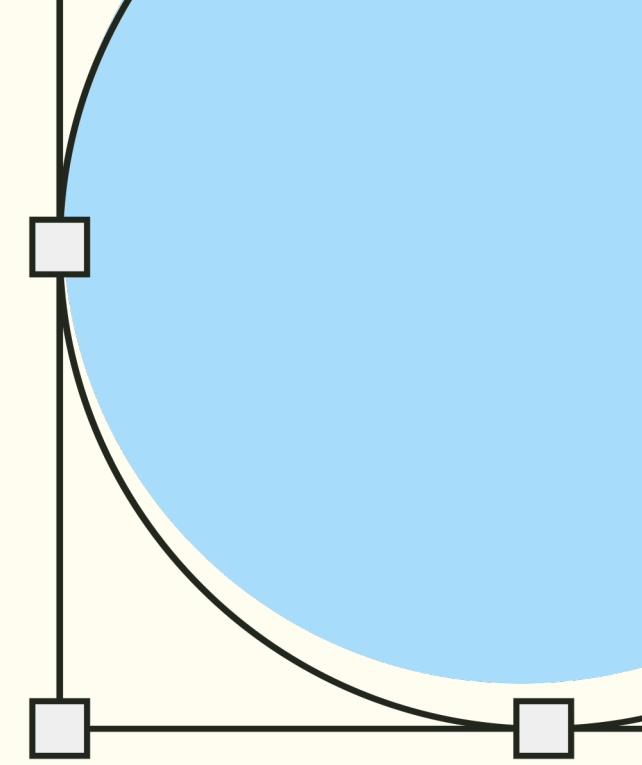
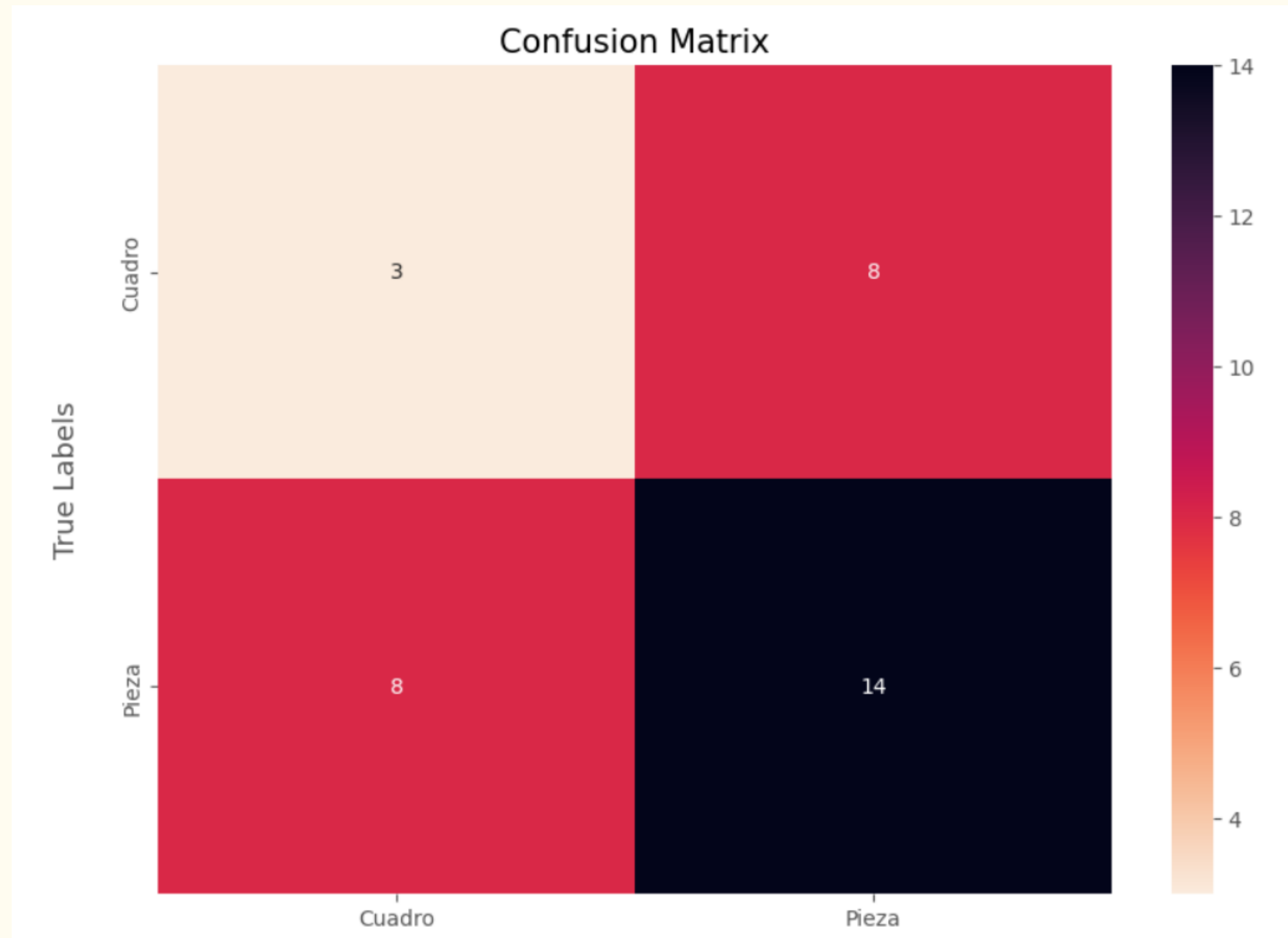
Modelo Pieza



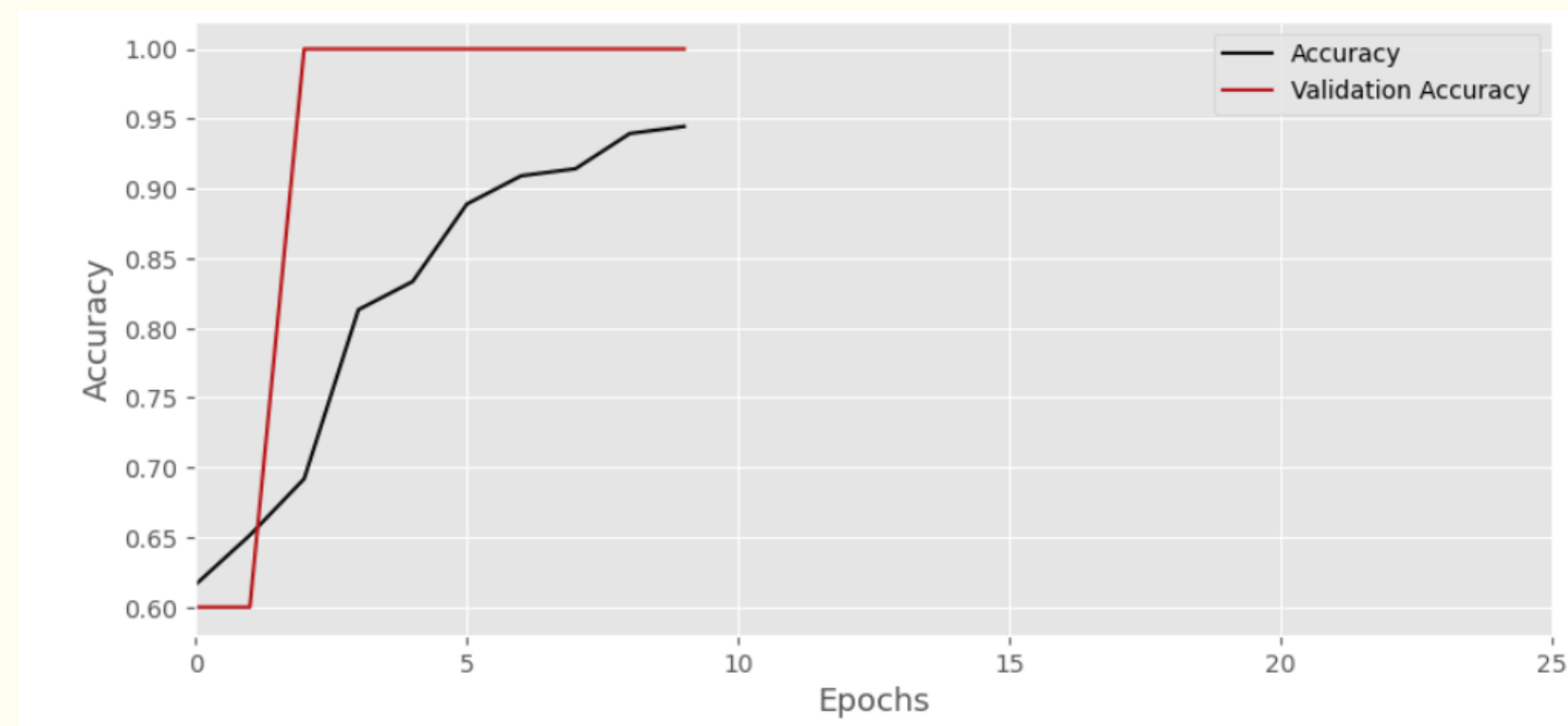
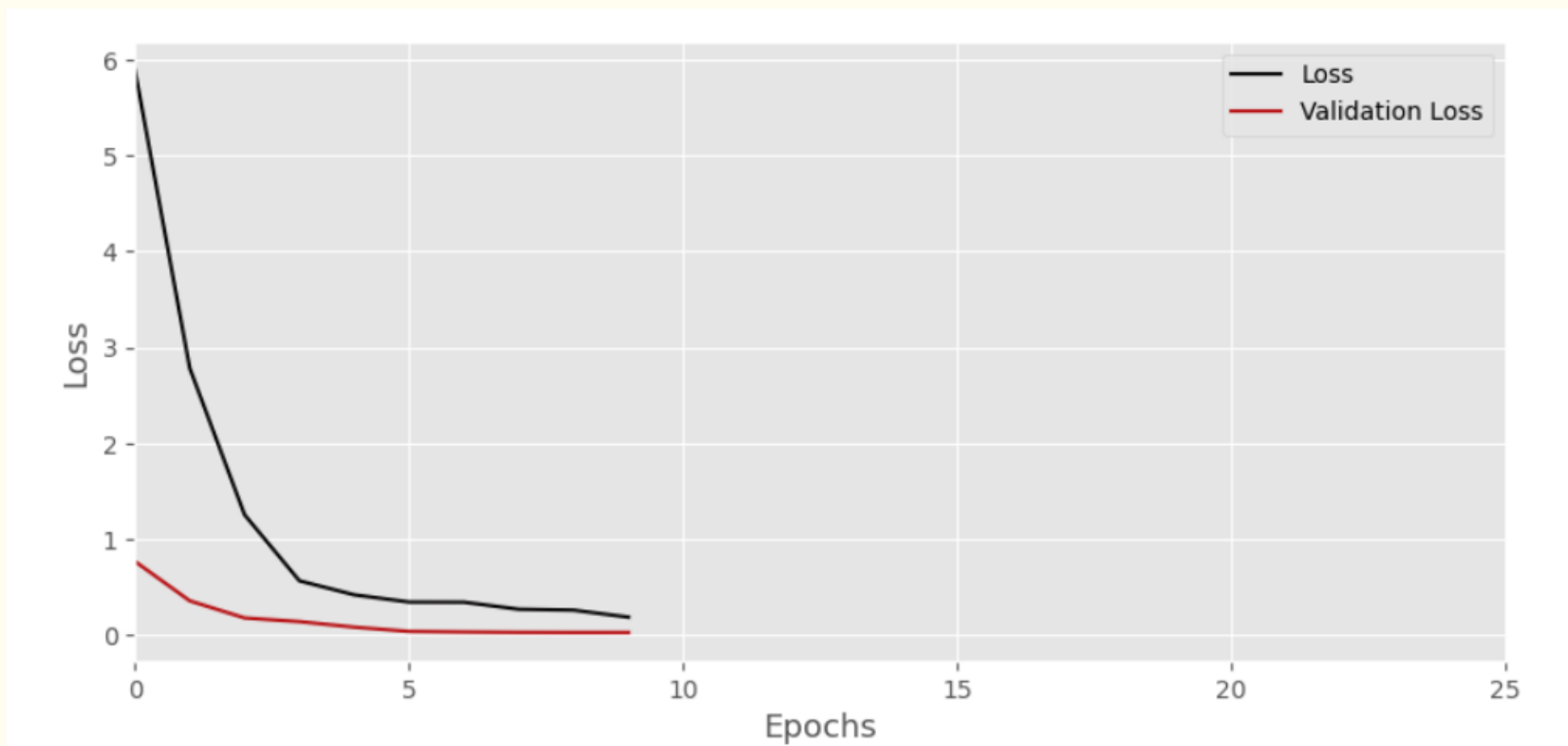
Resultados Cuadros



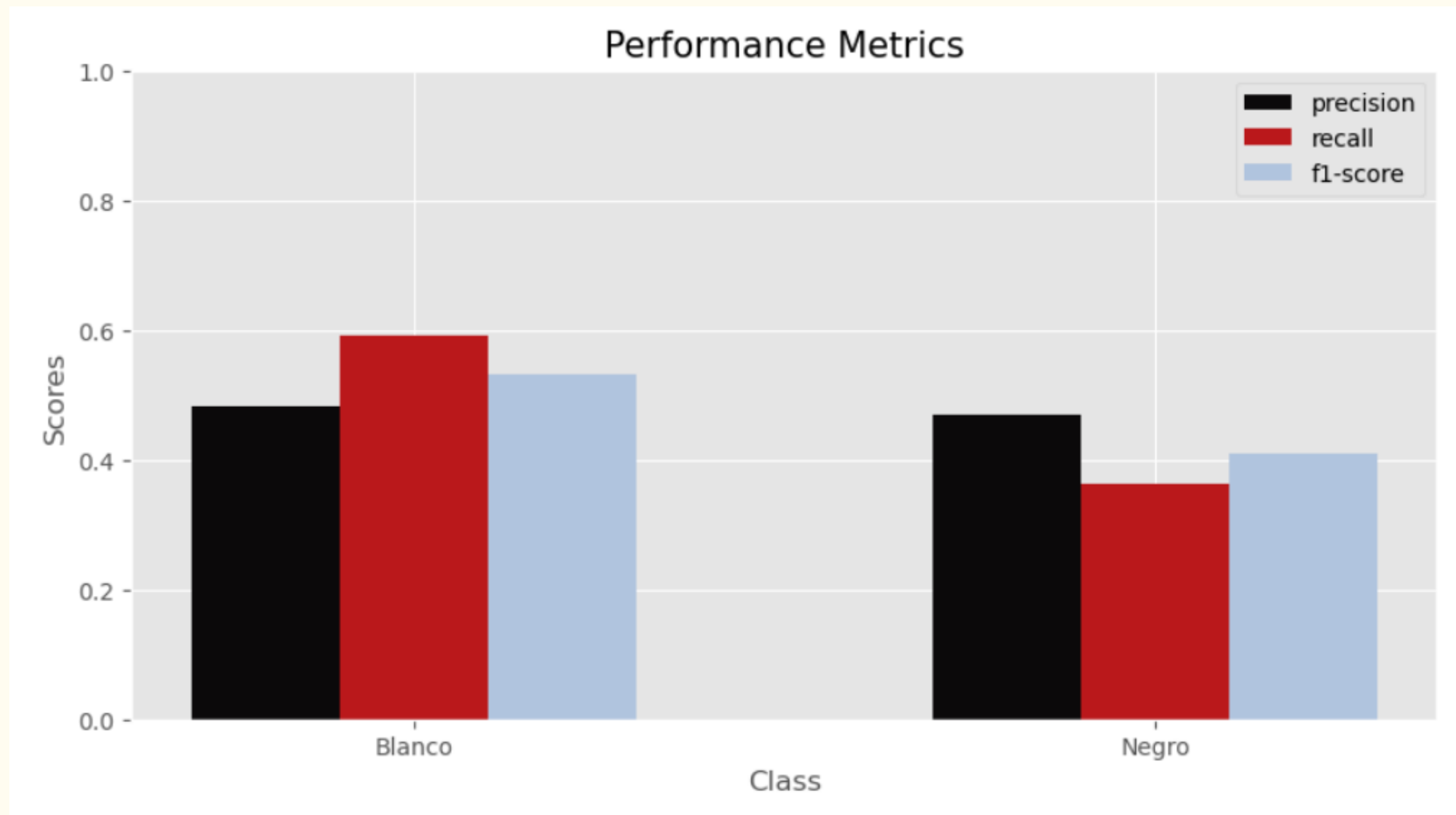
Resultados Caudros



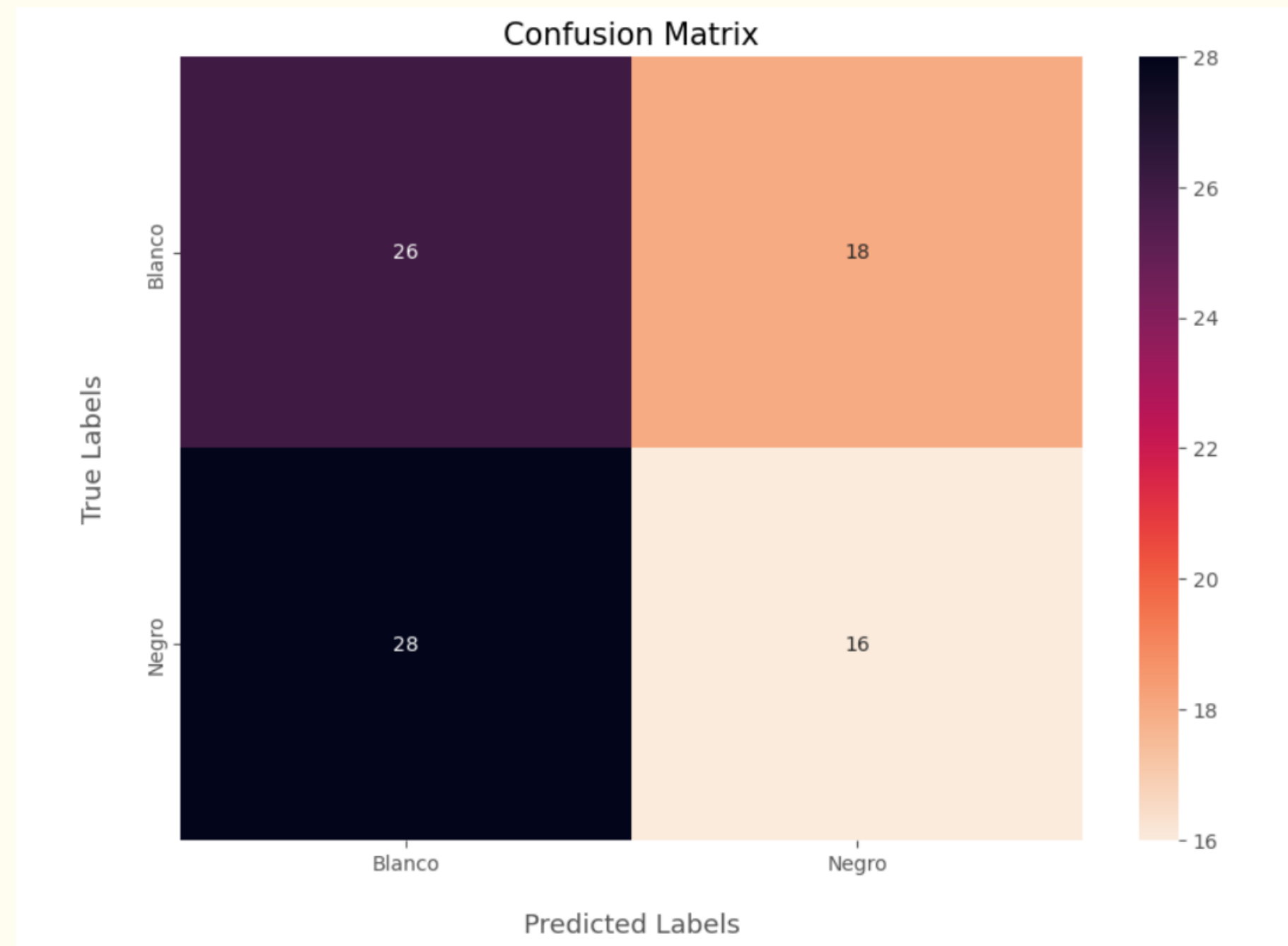
Modelo Colores



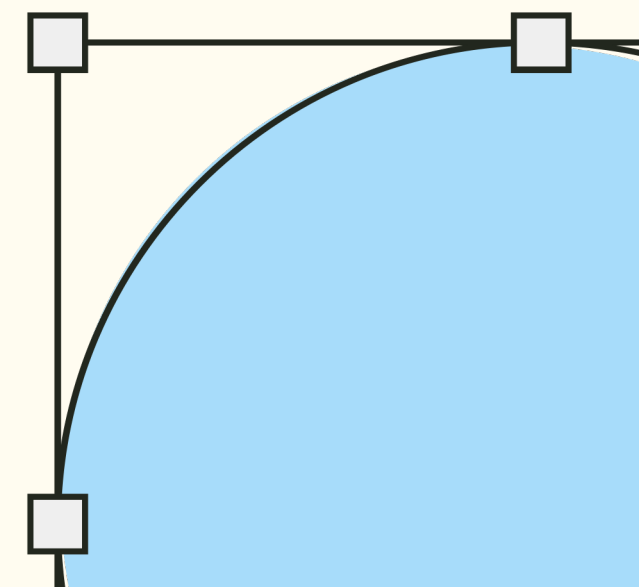
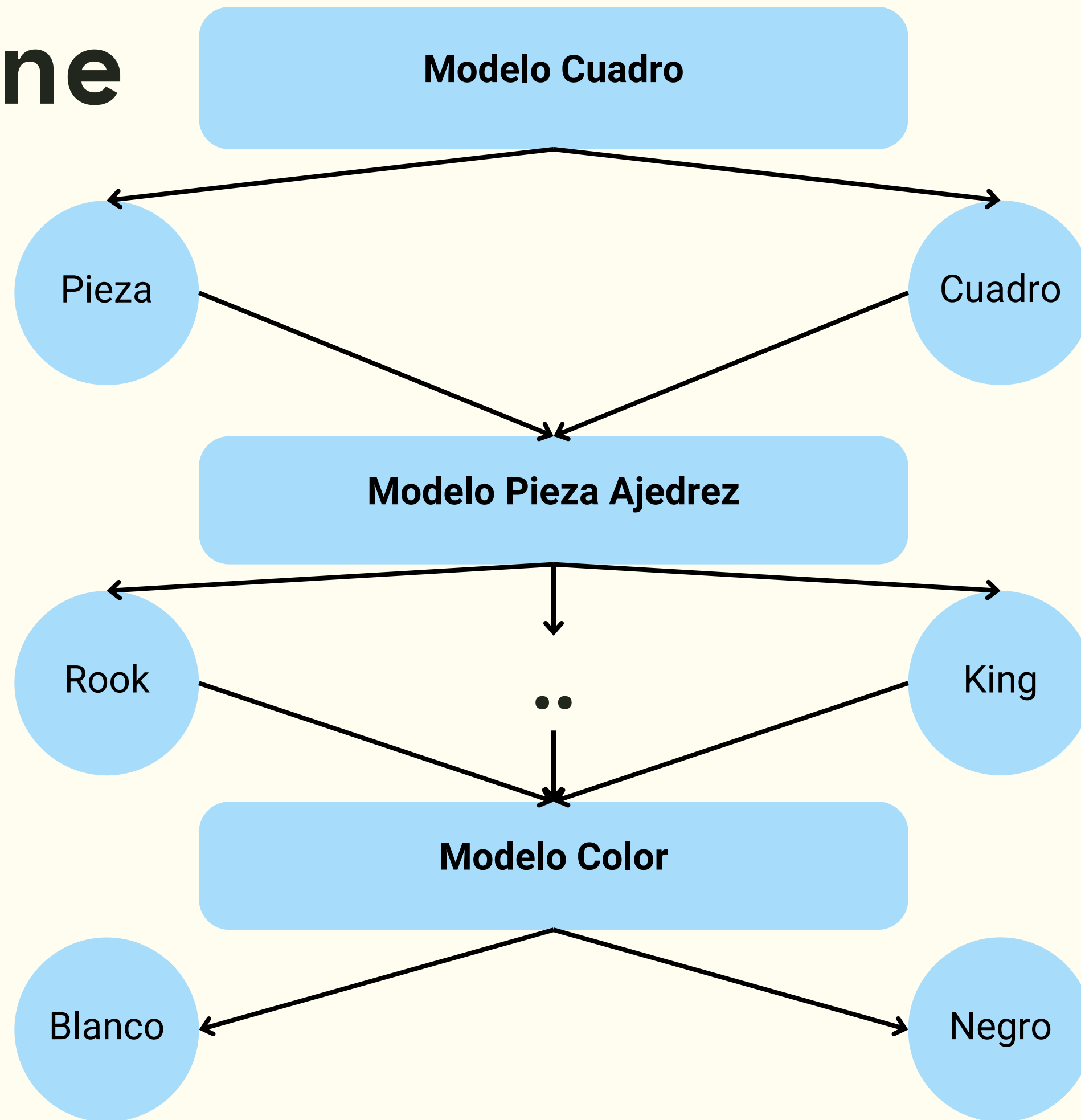
Resultados Colores



Resultados Colores



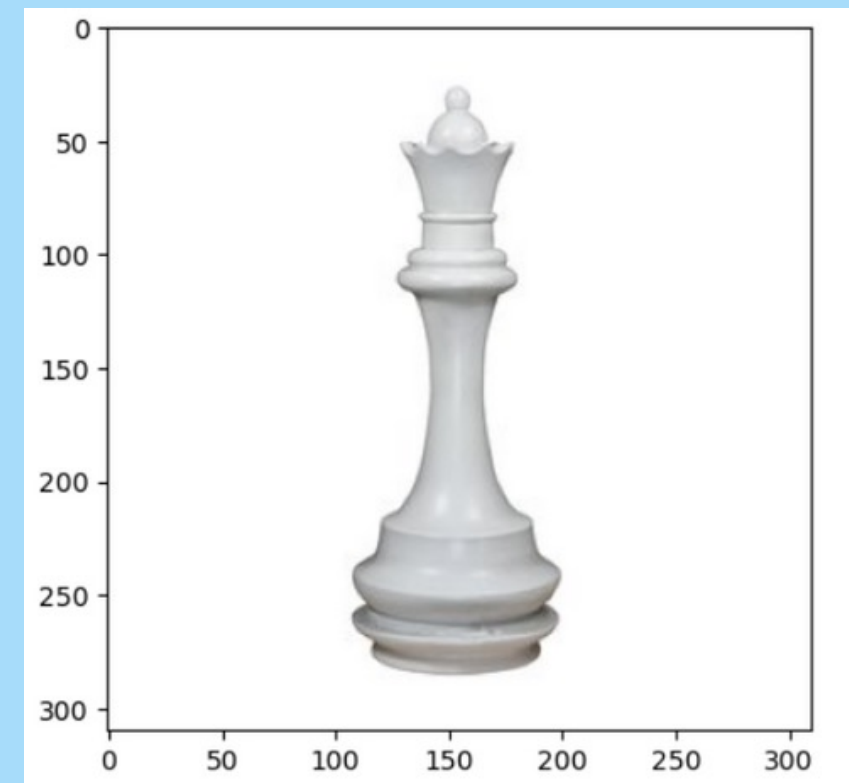
Pipeline



Prueba



Predicción:
Pawn
98%



Predicción:
Queen
95%

Prueba con tablero



Conclusiones

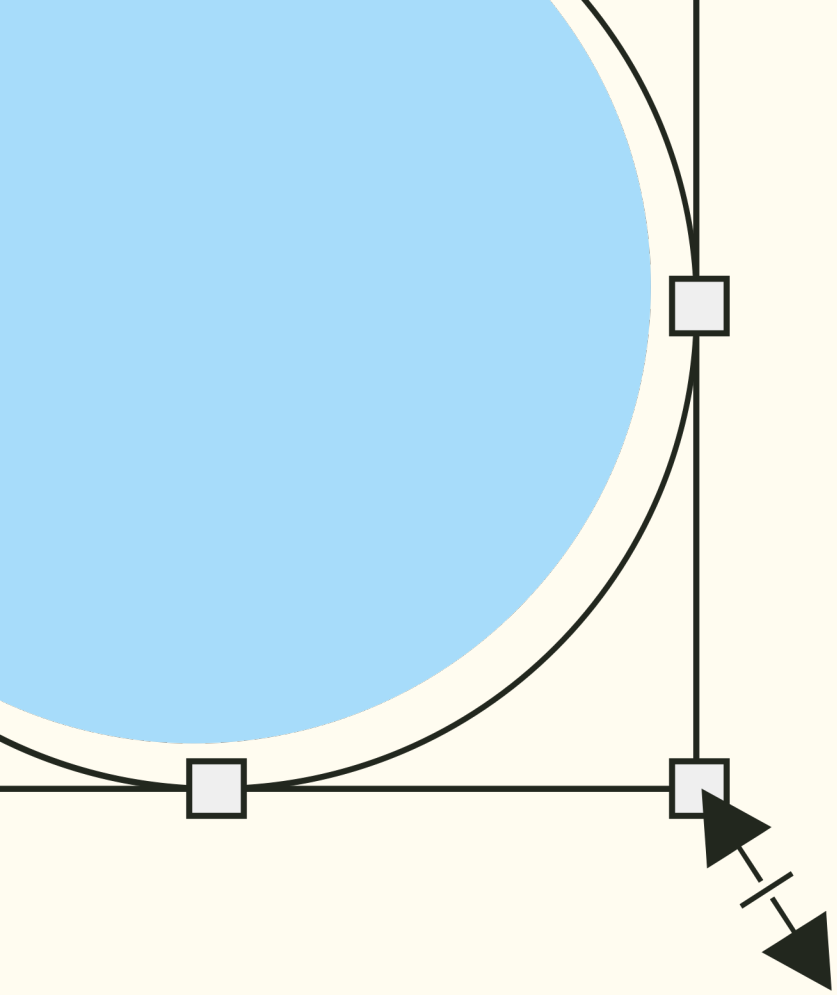
Piezas con bordes significativamente distintos son más fáciles de predecir

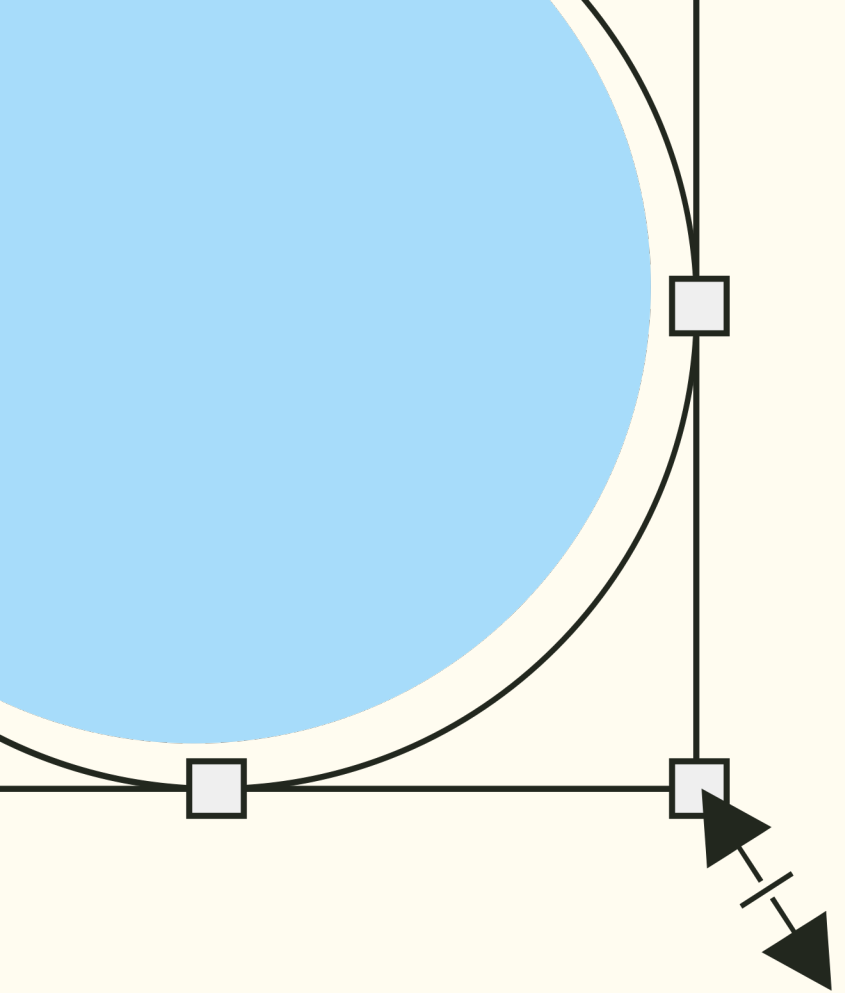


Ruido en los cuadros vacíos hace que modelar si hay una pieza o no sea complicado



El fondo del cuadro complica la predicción de a que color pertenece la pieza





Recomendaciones



Al hacer un modelo clasificador basado en fotos, asegurarse que existen fotos que representan distintos casos



Intentar comprender cuáles son las características de las fotos entre clases que puedan generar traslapes entre predicciones