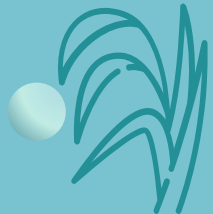


BIODIVERSARIUM



by
Douraïd BEN HASSEN
Kawtar SETTAR
Omaïma MADMOURH
Eliot MARECHAL

SOMMAIRE



DEMO

Présentation du projet



IA

Protocoles, architecture et apprentissage



Préparation dataset

Découpage vidéos et recadrage



EVOLUTION

Améliorations possibles



01

DEMO



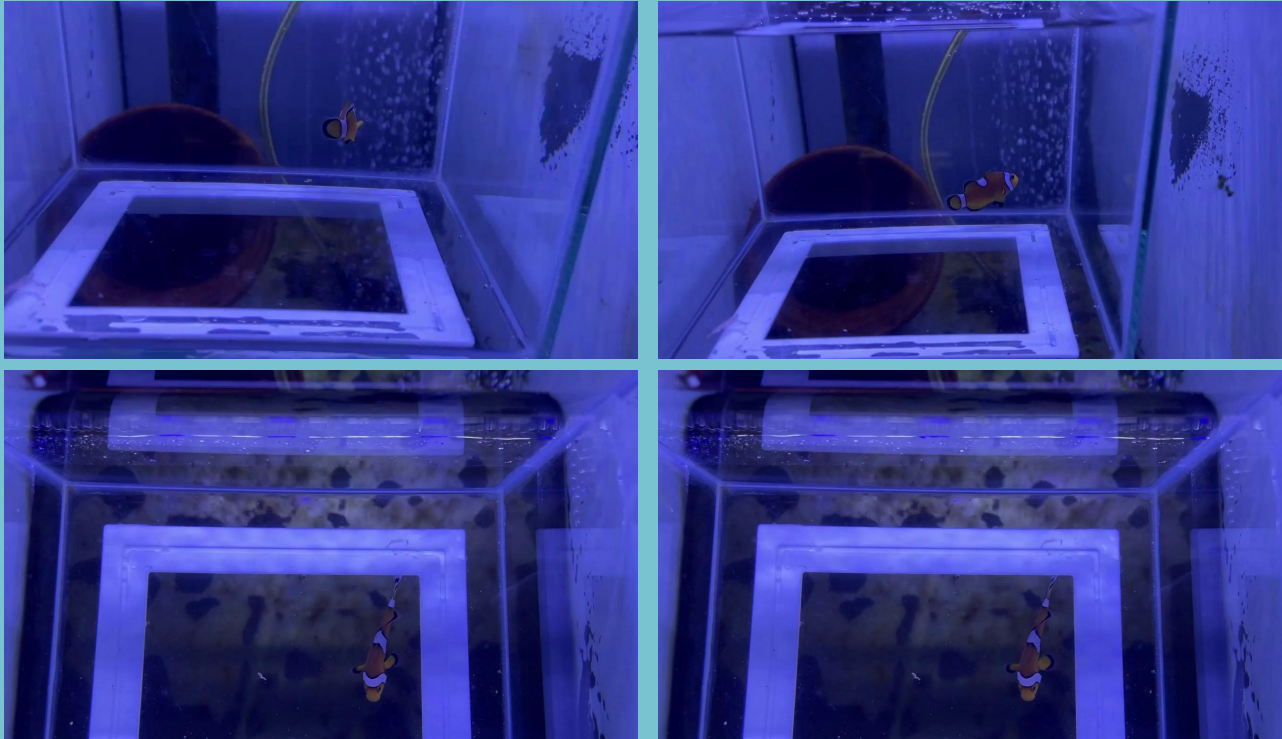
02

• Intelligence Artificielle •

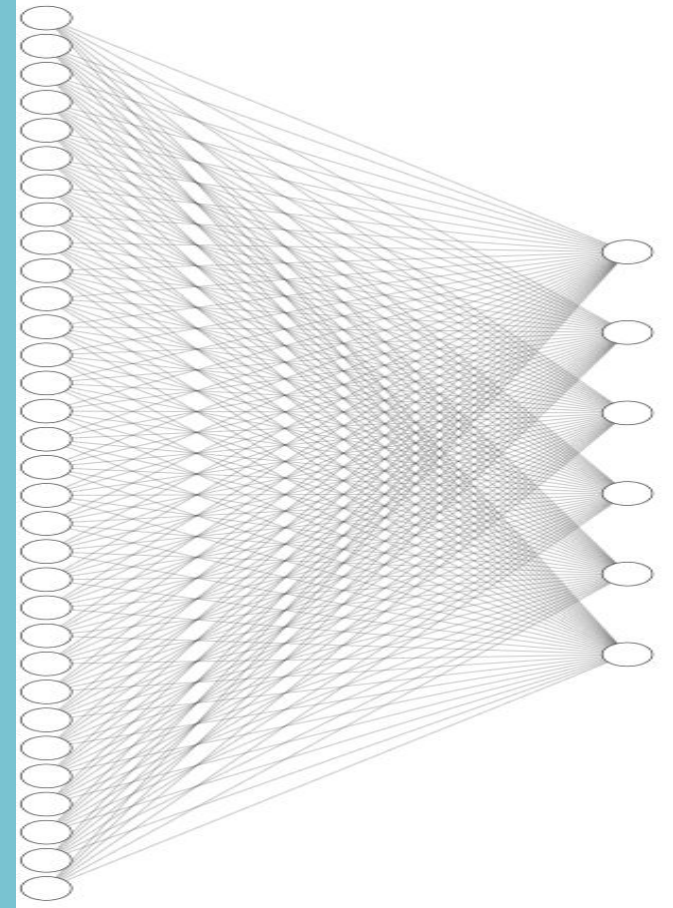
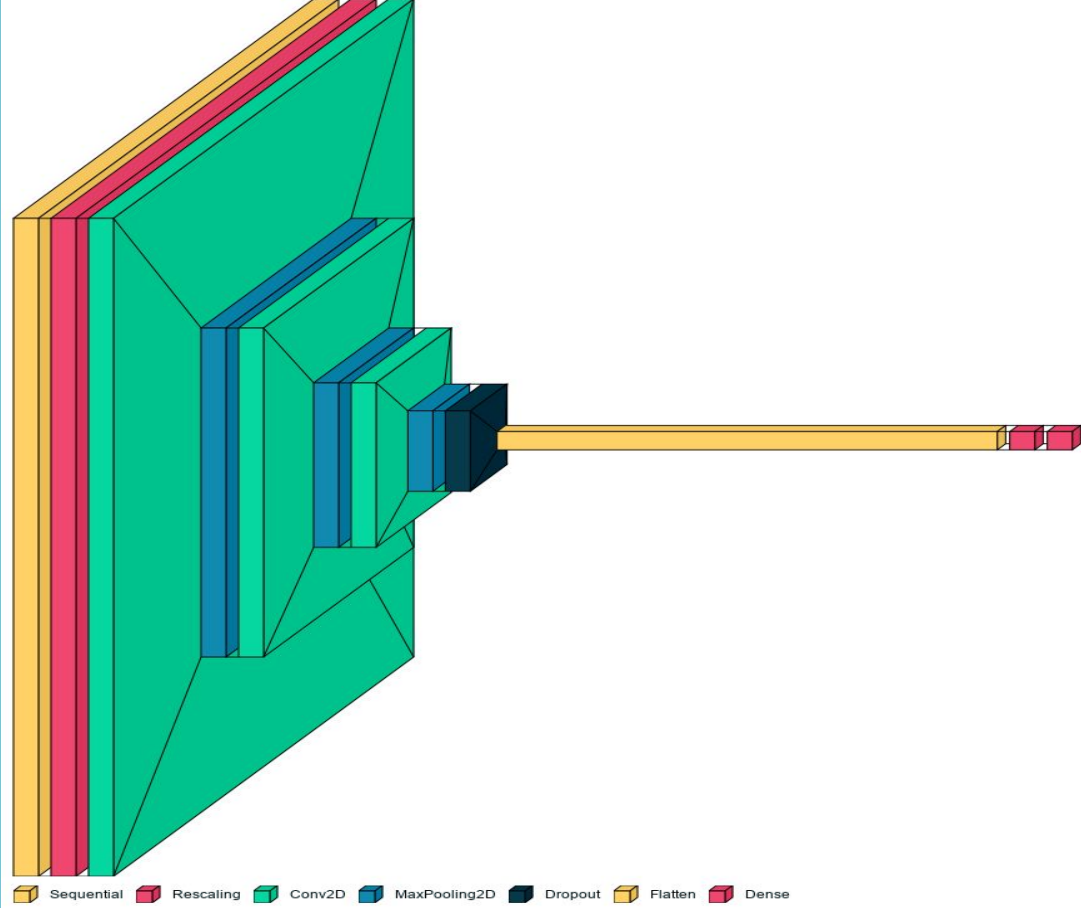


Protocole 1

Dataset (p1)



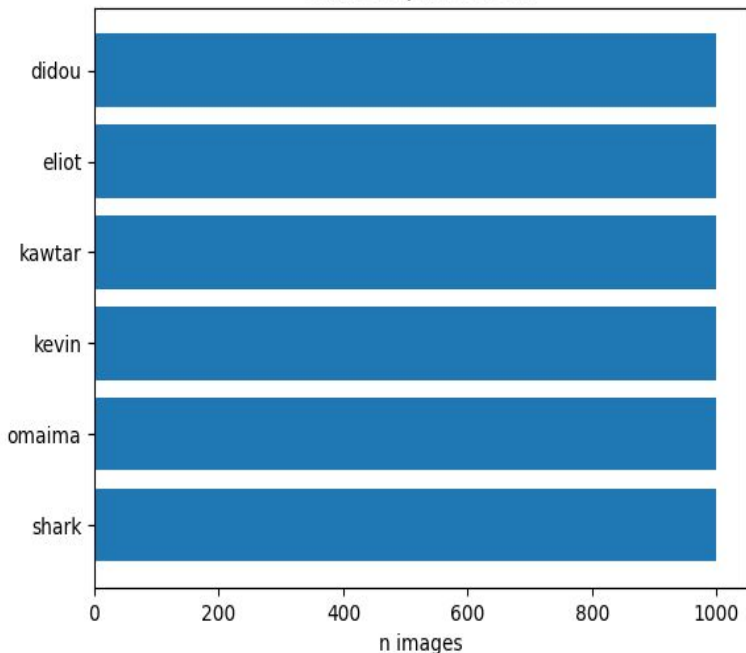
Architecture (p1)



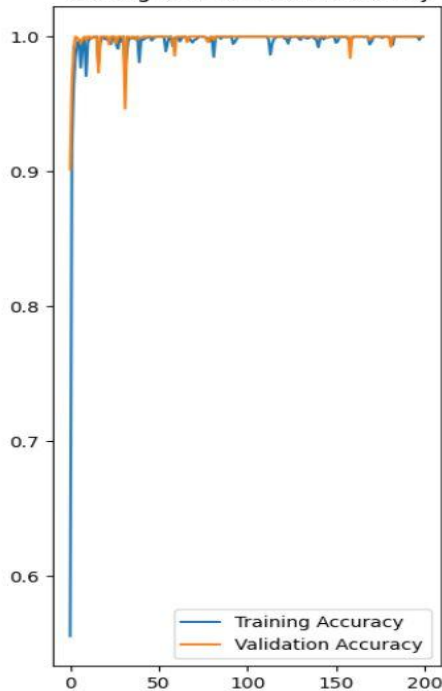


Dataset & Courbe d'apprentissage (p1)

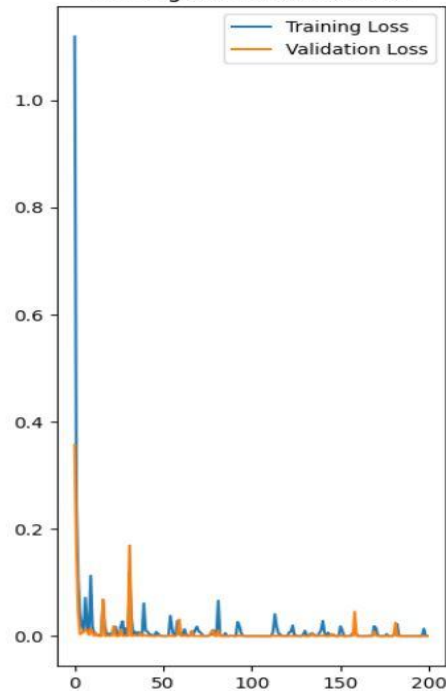
Dataset (protocole 1)



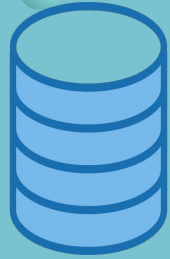
Training and Validation Accuracy



Training and Validation Loss



Matrice de confusion (p1)



Testing Dataset
(10 photos par poisson)

		Prédiction		
		Positive	Negative	
Réal	Positive	39	21	Sensitivity 0.65
	Negative	19	31	Specifitivity 0.38
		Precision 0.65	Negative Predictive Value 0.62	Accuracy 0.63

Accuracy = 63%
F1-SCORE = 66%



Protocole 2



Préparation du Dataset

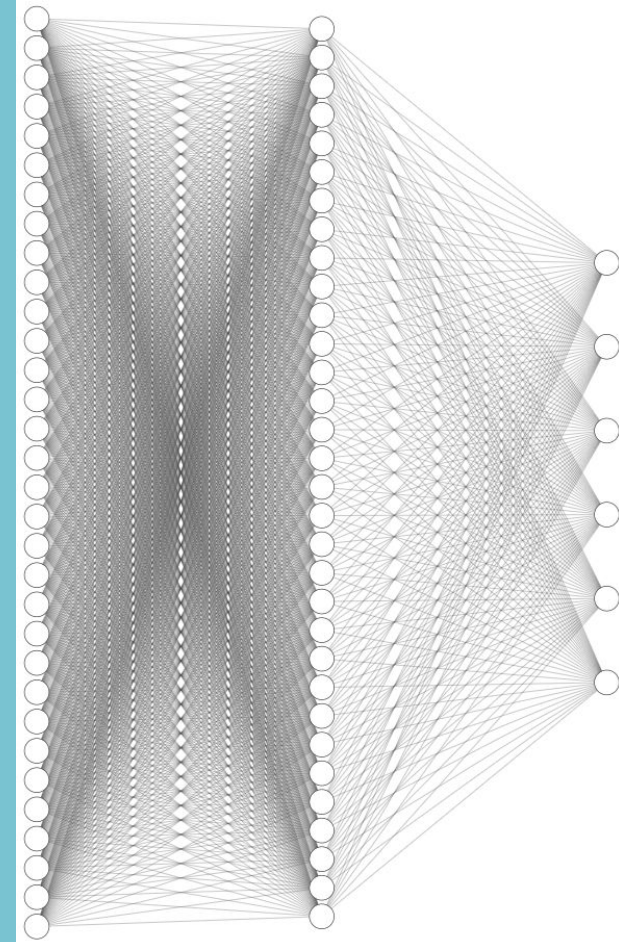


**Adobe Premiere
Pro**



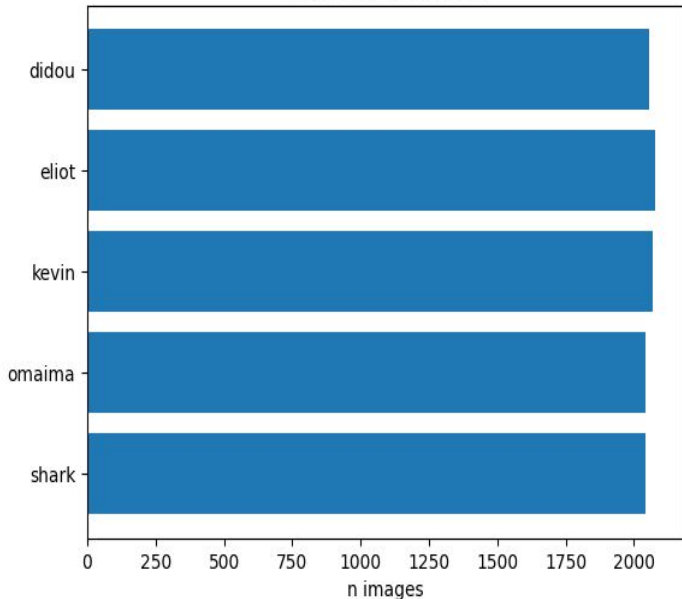
Dataset (p2)



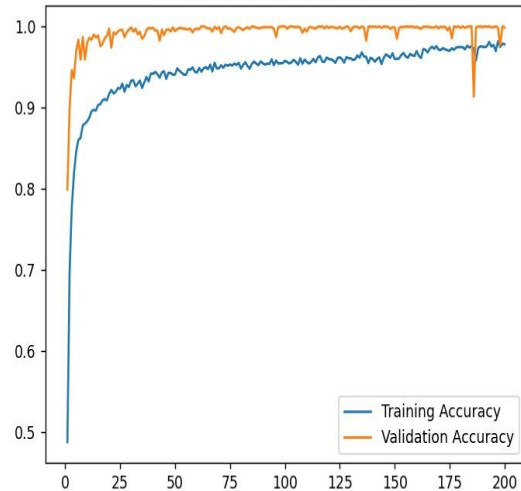


Dataset & Courbe d'apprentissage (p2)

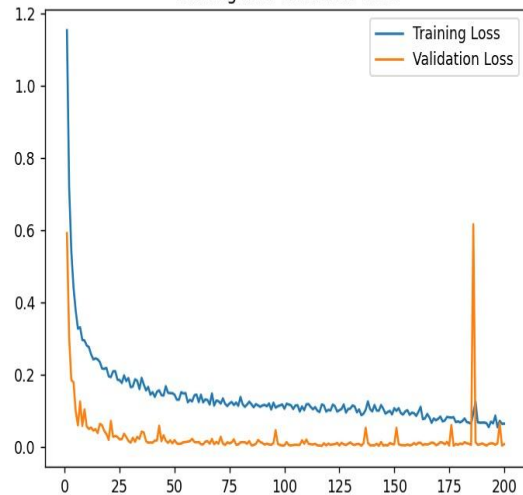
Dataset (protocole 2)



Training and Validation Accuracy



Training and Validation Loss



Matrice de confusion (p2)



Testing Dataset
(10 photos par poisson)

		Prédiction		
		Positive	Negative	
Réal	Positive	40	10	Sensitivity 0.8
	Negative	18	32	Specificity 0.36
		Precision 0.8	Negative Predictive Value 0.64	Accuracy 0.72

Accuracy = 72%
F1-SCORE = 74%

Améliorations

- Augmenter le dataset d'entraînement (de ~2000 par individu à ~10 000 par individu)
- Faire un bon traitement sur les photos de training (recadrage optimal)

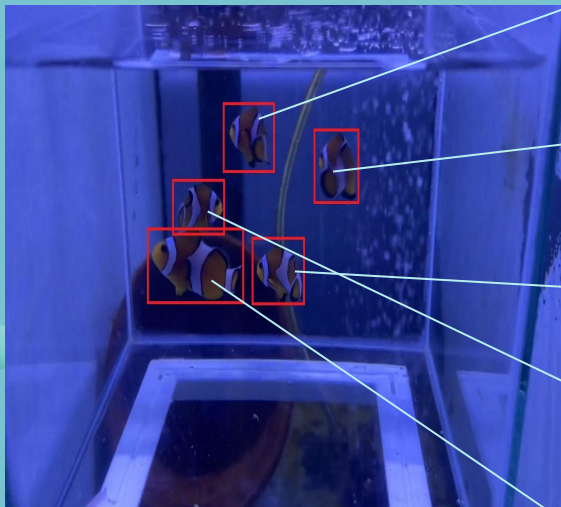


The background is a solid teal color. It is decorated with several light teal spheres of various sizes scattered across the top half. In the bottom half, there are several stylized, light teal fish swimming towards the right. Small white dots are also scattered throughout the lower half of the slide.

04

Evolution

Protocole 3



"omaima"



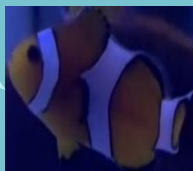
"didou"



"kawtar"



"eliot"



"shark"

