

# Classifier model for the Identification of gelatinous zooplankton species

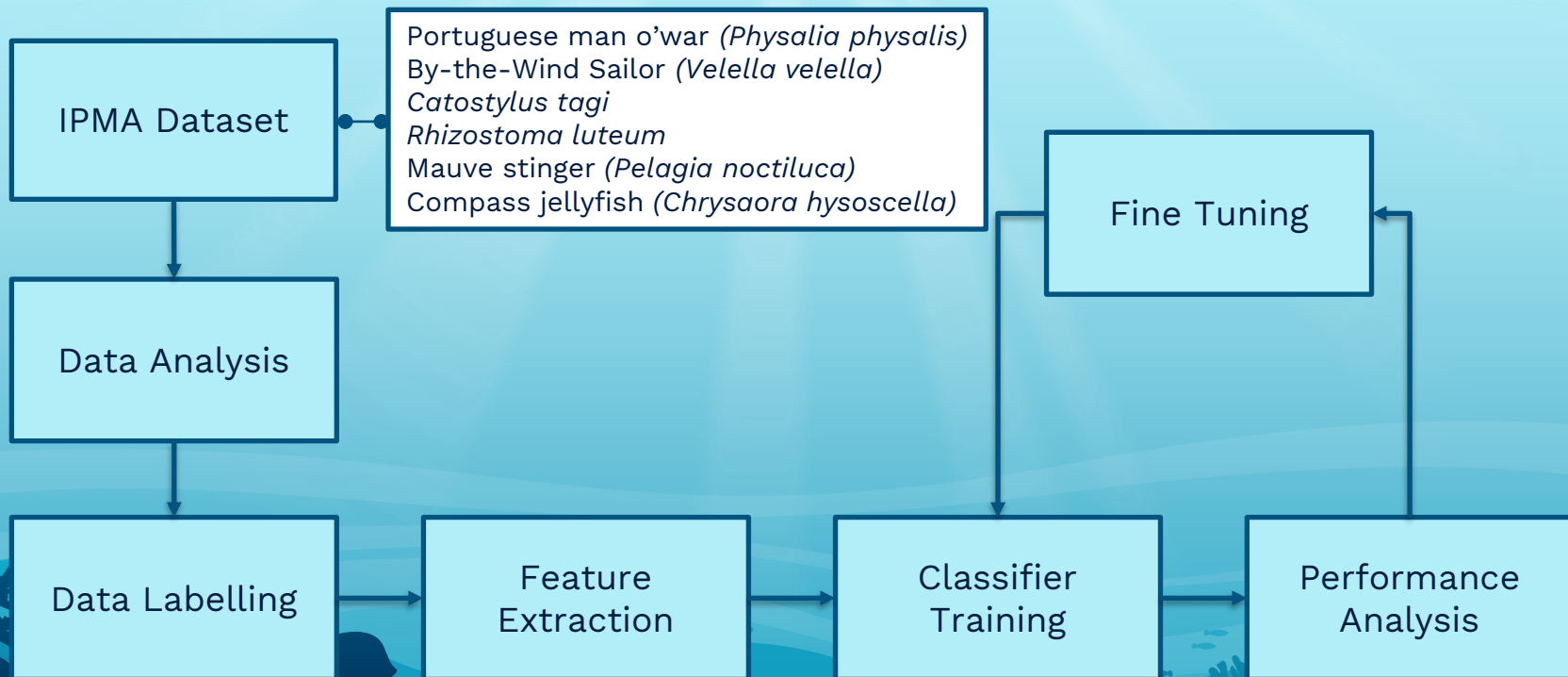
Joel Alexandre Vieira Fernandes

7º Encontro GelaVista  
11/10/2022 - IPMA, Algés

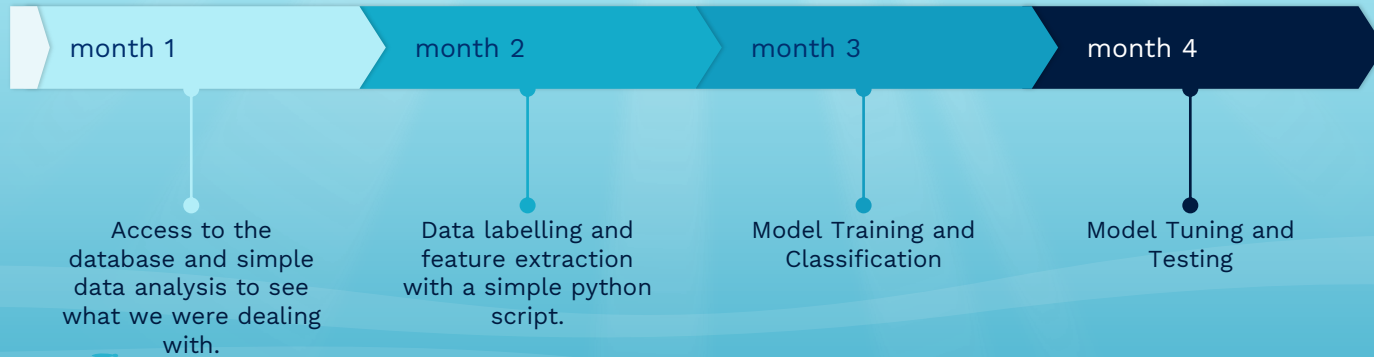


# 1. The Process

## Process

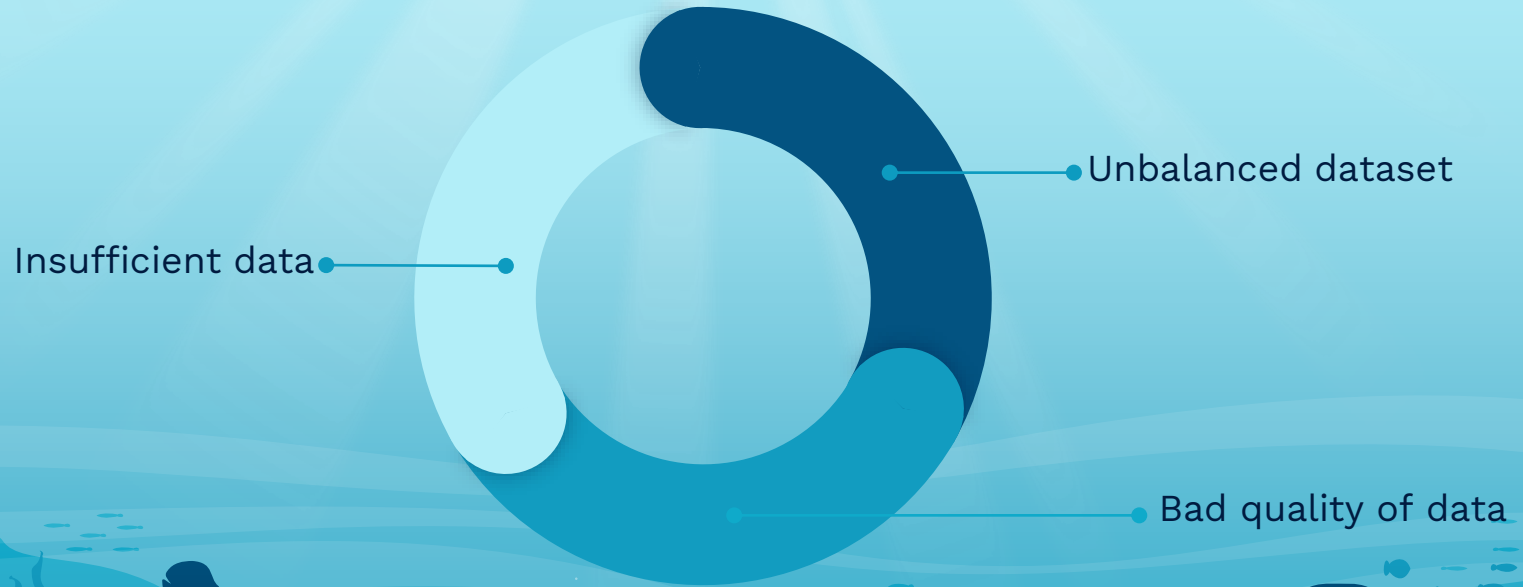


# Timeline



# 2. Development

# Data Analysis



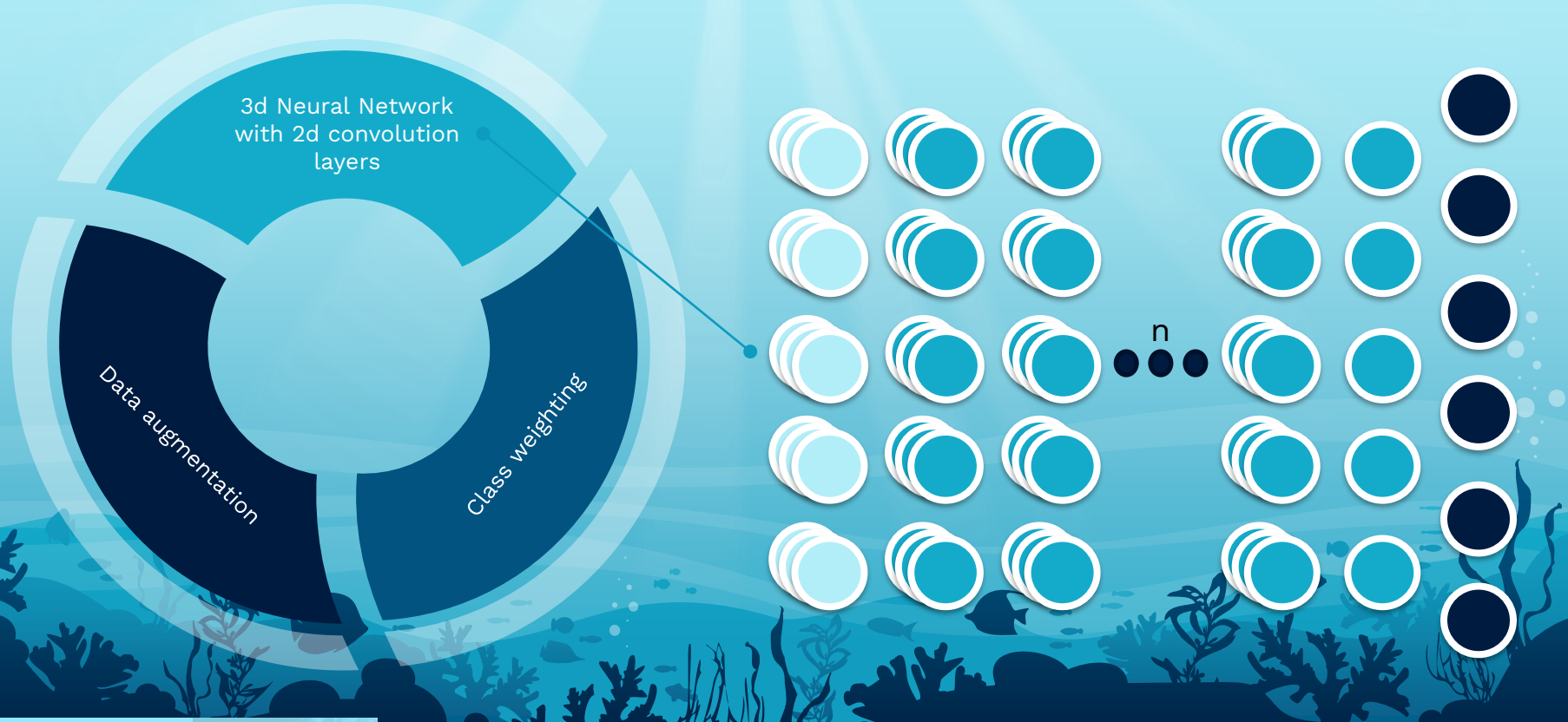
## Image Labelling and Feature Extraction



labelling 1.8.6 (1)



# Artificial Intelligence model





# 3. Results

## Model Settings and statistical results

Metric	Value	
Accuracy	<b>84.5%</b>	Accuracy in guessing the label for an image
Precision	<b>86.5%</b>	Fraction of positive identifications that were correct
Recall	<b>82.3%</b>	Fraction of actual positives that were identified correctly
F1 Score	<b>84.3%</b>	Harmonic mean of precision and recall

## Real world results



Predicted *Verella velella* with 82.2% certainty (2)



Predicted *Physalia physalis* with 95.2% certainty (4)



Predicted *Rhizostoma luteum* with 59.5% certainty (3)



Predicted *Catostylus tagi* with 73.7% certainty (5)

You can test this yourself using our web app at:

<https://gelatina.inesctec.pt/>



# 4. What's Next?

# 5. The Team

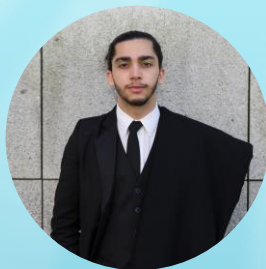


## Team Presentation



**Joel Fernandes**

1<sup>st</sup> year MEIC Student at  
FEUP  
up201904977@up.pt



**Óscar Esteves**

1<sup>st</sup> year MEIC Student at  
FEUP  
up201906834@up.pt



**Miguel Freitas**

1<sup>st</sup> year MEIC Student at  
FEUP  
up201906159@up.pt



**Pedro Magalhães**

1<sup>st</sup> year MEIC Student at  
FEUP  
up201905396@up.pt



**Ademar Aguiar**

Centre Coordinator at  
INETEC  
ademar.aguiar@inesctec.pt



**Artur Rocha**

Center Coordinator at INESCTEC  
Artur.rocha@inesctec.pt



**Fernando C. Marques**

Researcher at INESCTEC  
fernando.c.marques@inesctec.pt



**Hugo Paredes**

Senior Researcher at  
INESCTEC  
hugo.paredes@inesctec.pt



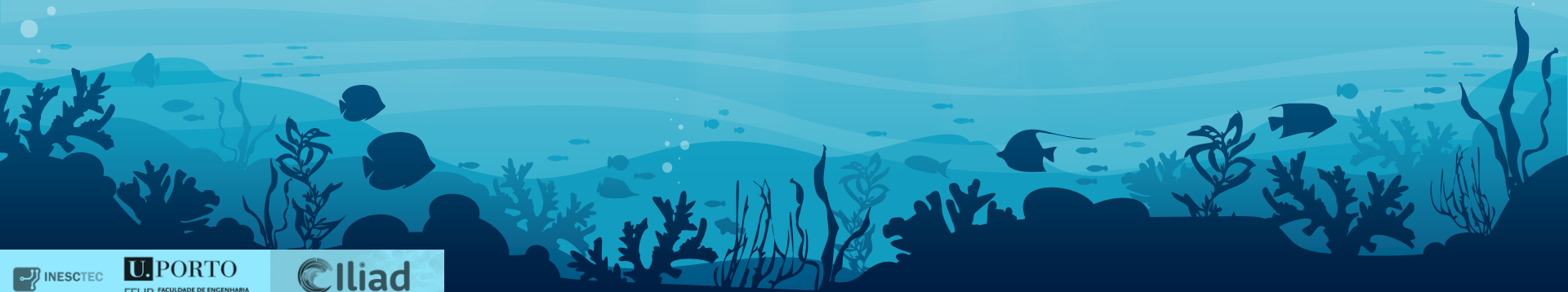
**Marco A. Oliveira**

Área Manager at INESCTEC  
marco.a.oliveira@inesctec.pt



## References

- 1 – [https://i.natgeoife.com/n/3e25b5da-cc9f-474e-82f7-e4ad20c0bdafa/3145746\\_4x3.jpg](https://i.natgeoife.com/n/3e25b5da-cc9f-474e-82f7-e4ad20c0bdafa/3145746_4x3.jpg) (accessed in 20/06/2022)
- 2 – [https://www.wilder.pt/wp-content/uploads/2018/09/IMG\\_20180912\\_101849.jpg](https://www.wilder.pt/wp-content/uploads/2018/09/IMG_20180912_101849.jpg) (accessed in 20/06/2022)
- 3 – [https://ariefransdejong.files.wordpress.com/2010/11/portugees\\_oorlogsschip\\_zal.jpg](https://ariefransdejong.files.wordpress.com/2010/11/portugees_oorlogsschip_zal.jpg) (accessed in 20/06/2022)
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