

# COMPETITION AND COLLABORATION

Khan CB<sup>1</sup>, Bogucki R<sup>2</sup>, Holmberg J<sup>3</sup>, Charlton C<sup>4</sup>, Parham J<sup>3</sup>, Blount D<sup>3</sup>

<sup>1</sup>NOAA Fisheries, Massachusetts, USA ([christin.khan@noaa.gov](mailto:christin.khan@noaa.gov))

<sup>2</sup>Deepsense.ai, Warsaw, Poland

<sup>3</sup>WildMe, Portland, Oregon, USA

<sup>4</sup>Curtin University, Perth, Western Australia



< 451



right whales are endangered and in decline



NOAA conducts aerial surveys to monitor whales



Photos are matched to **New England Aquarium** catalog

470



data scientists from around the world competed

kaggle™

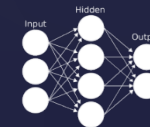
We hosted a **competition** to automate photo id



Sometimes photo identification is **time consuming**

deepsense.ai  
BIG DATA SCIENCE

1<sup>st</sup> place winner  
matched individuals  
**87% correct**



Solution based on **deep learning** algorithms



Algorithms are **open source** on GitHub

flukebook

Partnering with WildMe to develop **online platform**



Collaborating with **southern right whale** catalogs



Finally got the **funding** to create the software!



deepsense.ai  
BIG DATA SCIENCE



Curtin