

# Convolutional Neural Networks

Biomark Applied Biological Services is currently working with leading non-profit organizations to develop a series of open source tools to aide in Sea Turtle conservation. Using regional convolutional neural networks (R-CNN), a type of deep learning artificial intelligence, ABS hopes to automate Sea Turtle counts from surveys generated via drone video and imagery. Using currently available imagery and video already collected, ABS is working to train a deep learning network to recognize and count sea turtles, unassisted, from a variety of video and imagery platforms to help researchers better characterize and constrain turtle movement, survival, abundance, and densities.

## Applicable Services:

- Deep learning - automated animal counts from aerial survey imagery
- Machine learning
- Artificial intelligence
- Behavioral data meta-analysis and prediction