**CNN-Based Boat Detection Model for Alert System Using Surveillance Video Camera**

We propose a boat detection model based on convolutional neural networks (CNNs) using VGG19 that is trained using several types of boat pictures. Our proposed model aims to detect the type of boat passing through the canal using images obtained from the surveillance video camera.

F1-score = 0.70

The small size of the training set is the reason for using transfer learning.

**Generic and attribute-specific deep representations for maritime vessels**

Visual classification of maritime vessels is another important task, assisting naval security and surveillance applications. We introduced, MARVEL, a large-scale image dataset for maritime vessels, consisting of 2 million user-uploaded images and their various attributes, including vessel identity, type, category, year built, length, and tonnage, collected from a community website.

Using their dataset they perform different tasks:

1. vessel verification where the attribute to be verified is the vessel identity;
2. vessel retrieval
3. vessel recognition

**SAR SHIP DETECTION USING SEA-LAND SEGMENTATION-BASED CONVOLUTIONAL NEURAL NETWORK**

we present a framework of Sea-Land Segmentation-based Convolutional Neural Network (SLS-CNN) for ship detection that attempts to combine the SLS-CNN detector, saliency computation and corner features.

**VAIS: A Dataset for Recognizing Maritime Imagery in the Visible and Infrared Spectrums**

The development of fully autonomous seafaring vessels has enormous implications to the world’s global supply chain and militaries. To obey international marine traffic regulations, these vessels must be equipped with machine vision systems that can classify other ships nearby during the day and night.

**Detection of Ship from Satellite Images Using Deep Convolutional Neural Networks with Improved Median Filter**

Detection of maritime object is of greater attention in the field of satellite image processing applications in order to ensure the security and traffic control. An noisy image is denoised using a median filter and then is given in input to CNN. The performance of this model are then compared with some of the state of the art approaches such as SVM and Local Binary Pattern (LBP).

**AUTOMATIC MARITIME SURVEILLANCE WITH VISUAL TARGET DETECTION**

In this paper an automatic maritime surveillance system is presented. Boat detection is performed by means of an Haar-like classifier in order to obtain robustness with respect to targets having very different size, reflections and wakes on the water surface, and apparently motionless boats anchored off the coast.