

Ben Freeston

Surflife / Wavetrak

bfreeston@surflife.com



Webcam Object Detection and Tracking



How it works

- Use existing object detection networks
- Retrain with large sets of labelled data
- Multi class to separate objects by state
- Apply object tracking with separate algorithm



Detect Surfed Waves

2018-05-24 13:27:39





Count Water Users

- Real-time intelligence for surfers
- Predict participation
- Feature for risk modelling
- 5 years of data from 500+ locations

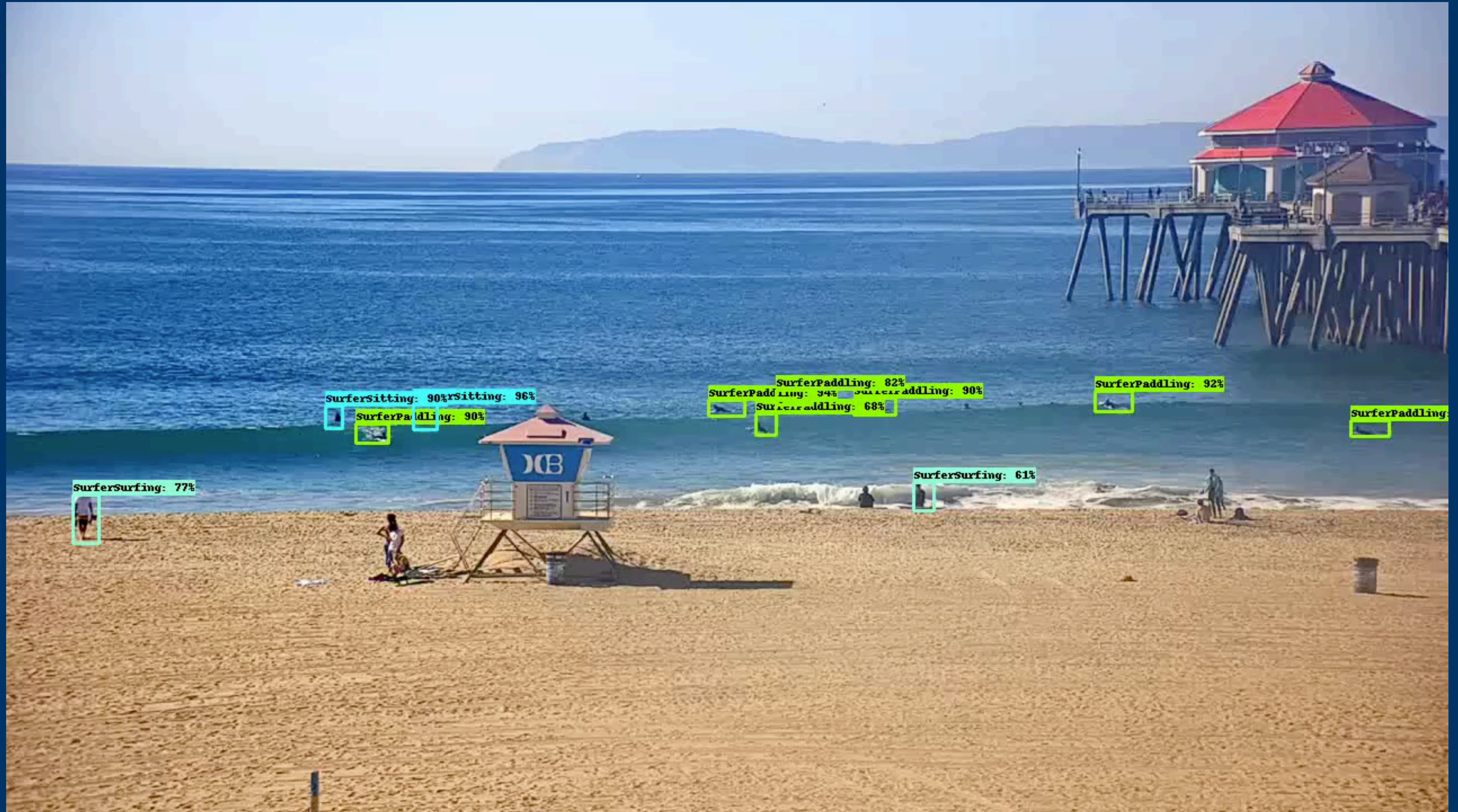


Detect Surface Currents

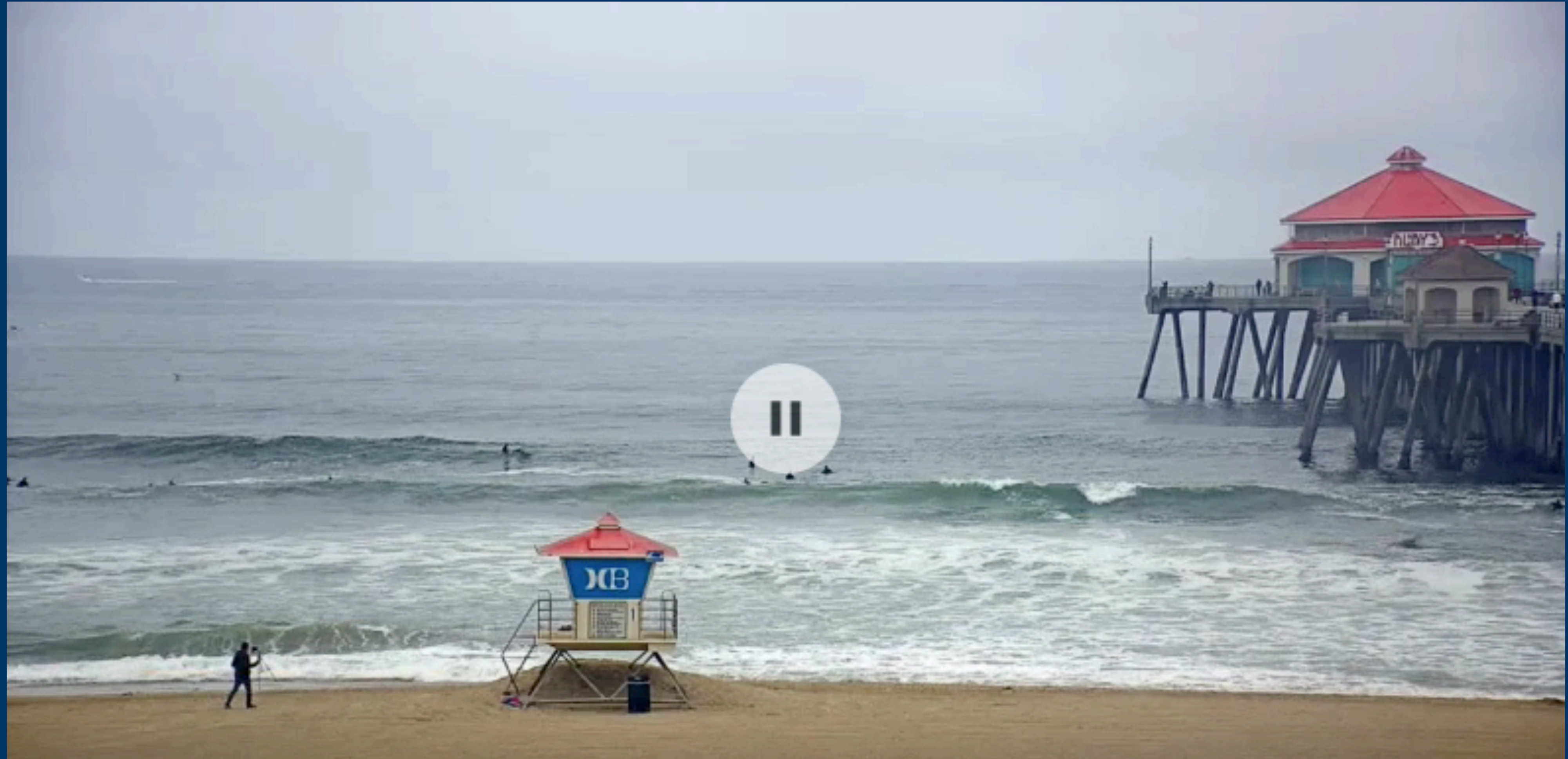
- Object detection recognises surfers sitting
- Object tracking gives movement
- 2d -> 3d translation gives speed and direction







Object detection for breaking waves



Absence of
detection isn't
detection of
absence



