Project #30 Benjamin Salmon, Yun-Shan Tsai
Supervisor: Trevor Gee
Co-supervisor: Henry Williams

UNIVERSITY OF AUCKLAND
Waipapa Taumata Rau
NEW ZEALAND

ENGINEERING
DEPARTMENT OF ELECTRICAL, COMPUTER, AND SOFTWARE ENGINEERING

Turbulent Water Modelling for Robotic Vision Systems

Problem Description

Aquaculture

Automating aquaculture tasks with aquatic robots

Turbulent Water

Underwater turbulence comes in many different forms

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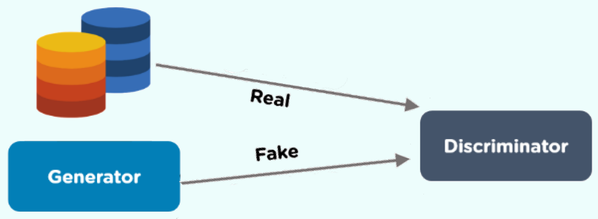
Our goal is to remove the distorted effect in underwater images caused by turbulence

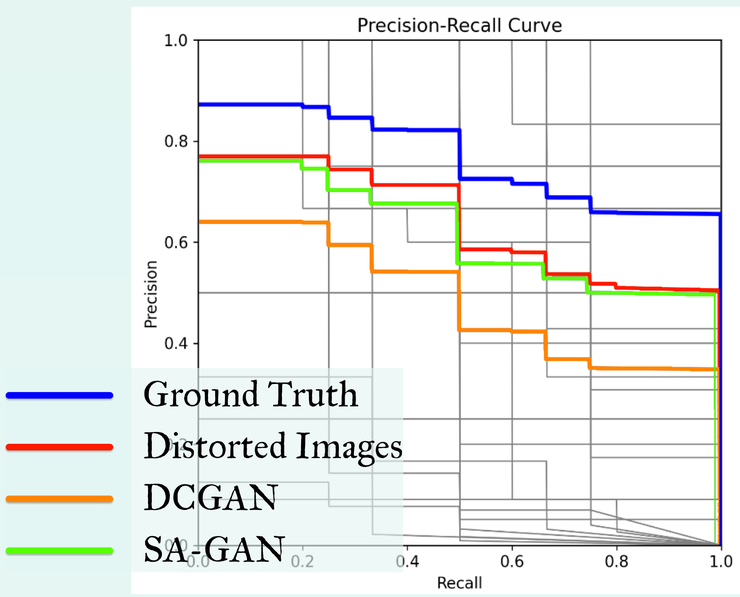


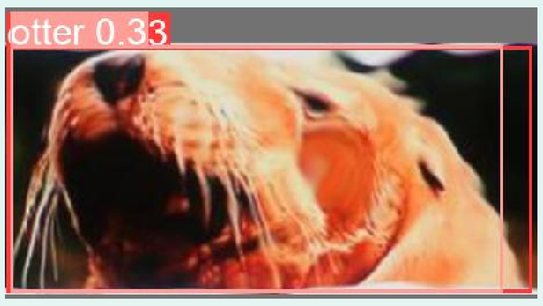
Generative Adversarial Network (GAN): a machine learning model consisting of a generator and a discriminator that train against each other.

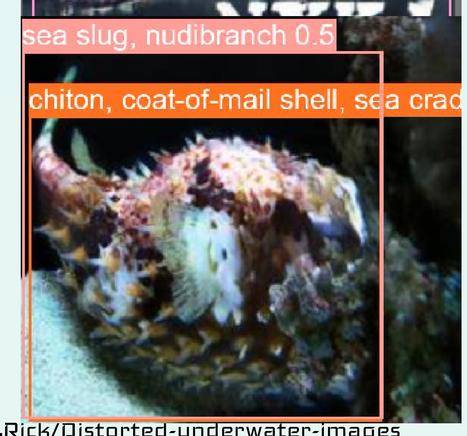
Our Experiment

	Ground Truth	1st Distorted Images	3rd DCGAN [1]	2nd SA-GAN[2]
Input Images				
Turbulence Removal				

Object Recognition







References: [1] https://github.com/zmurez/TurbulentWater [2] https://github.com/UVLRick/Distorted-underwater-images