• **Image recognition by machine learning**
  The accuracy of image recognition is very increased by multilayer neural networks that learn from a lot of images. In the future, this technique is expected to apply in various fields for example autonomous driving car.

• **Adversarial example**
  It’s reported that machines, even high accuracy classifiers, have possibility of misrecognition that is far from the human sense. → It’s called adversarial example and sometimes regarded as an attack.

  From left, original, noised and adversarial image.

• **Detection**
  In this research, we tried to detect it by following approach as one of the countermeasures. As a result, we detected over 80%.

  1. Measure how easy to be classified as other class by calculating saliency map.
  2. Construct detector that is trained by values calculated by procedure 1.

  Saliency map