# PixelFeature (L1)

Non-linear bio-inspired features

* Raw Pixel (Color / Gray)
* Local Normalized Pixel (center-surround)
* Gradient
* High Order Moment

## Input: Image

## Output: Dense Image Feature

# PatchFeature (L2)

## Ver 1

### Input: Dense Image Feature, Patch Sampling

### Coding & Pooling Ver 1

### Output: Dense Patch Feature

## Ver 2

### Input: Image, Patch Sampling

### Output: Dense Patch Feature

# ImageFeature (L3)

## Ver 1

### Input: Dense Patch Feature, Image Pyramid

### Coding & Pooling Ver 1

### Output: Dense Global Feature

## Ver 2

### Input: Dense Patch Feature

### Coding & Pooling Ver 2

### Output: Sparse Local Feature

# Coding & Pooling

## Ver 1

### Input: Dense Feature

### Output: Dense Feature after coding & pooling

## Ver 2

### Input: Dense Feature

### Output: Sparse Feature

## Ver 3

### Input: Dense Feature, Model

### Output: Scalar Score