

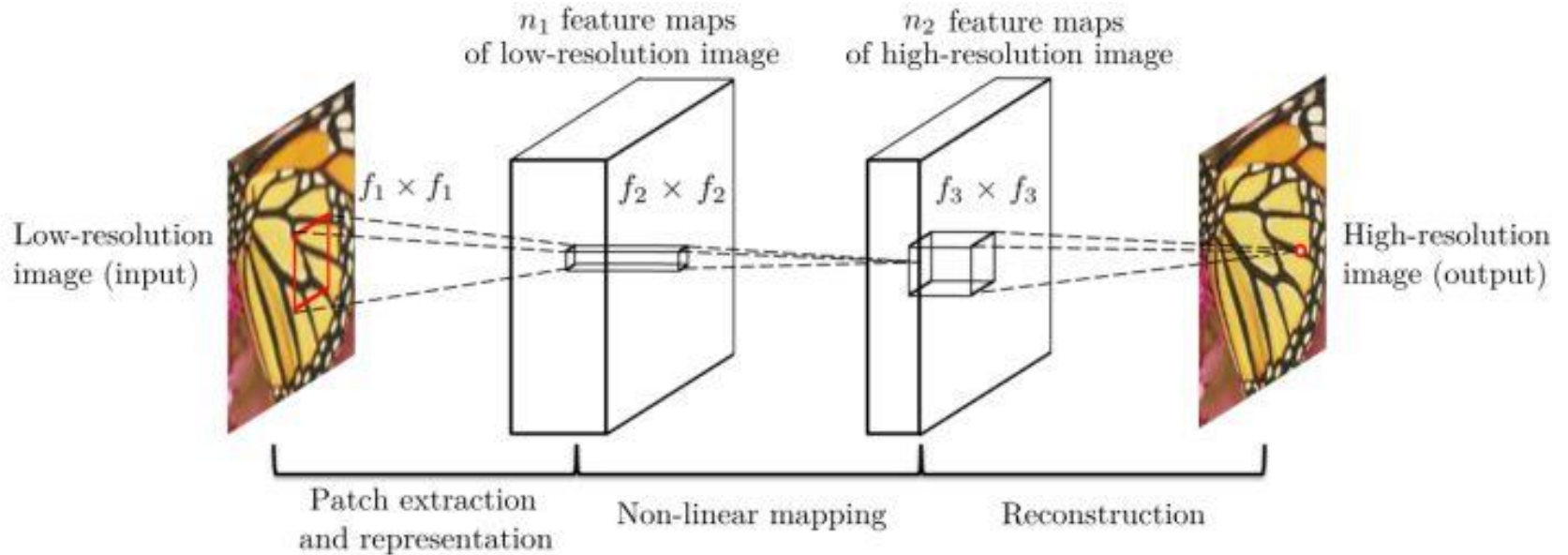
# SUPER-RESOLUTION

- ▶ 작은 이미지를 확대했을 때 화질이 좋지 않음.
- ▶ Convolution Neural Network를 통한 화질 개선.



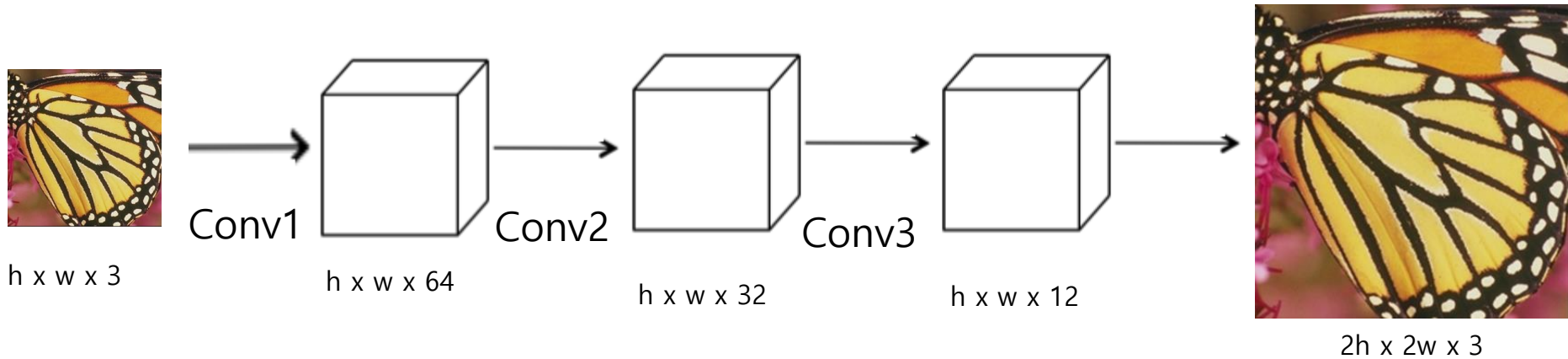
# SUPER-RESOLUTION

- ▶ 보통 Low Resolution과 high resolution의 해상도가 동일하게 맞추어서 진행.
- ▶ Low Resolution은 정보량이 낮음 → 많은 연산의 낭비.



# SUPER-RESOLUTION

## ► Convolution Neural Network



Real-Time Single Image and Video Super-Resolution Using an Efficient Sub-Pixel Convolutional Neural Network (Wenzhe Shi, Jose Caballero, Ferenc Huszar<sup>1</sup>, Johannes Totz, Andrew P. Aitken, Rob Bishop, Daniel Rueckert, Zehan Wang, Magic Pony Technology, Imperial College London).

# SUPER-RESOLUTION

## ► Berkeley Segmentation Data Set





# SUPER-RESOLUTION

- **Berkeley Segmentation Data Set**



# SUPER-RESOLUTION

## ► Bilinear Interpolation vs CNN

