

Blending for gesture recognition

Reason:

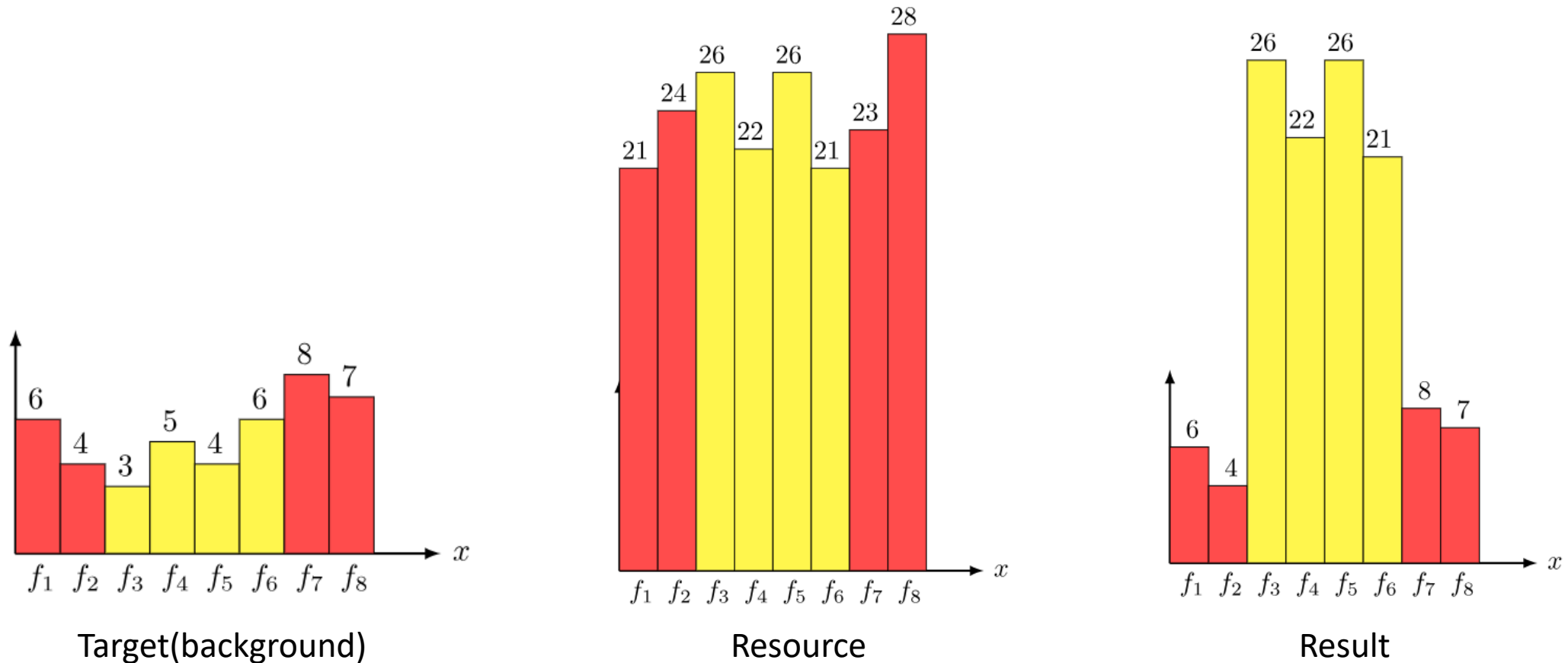
- Synthetic image dataset generation
- Reducing the cost of data collection and labeling

Objective:

- we want to see if a seamless and more natural looking synthesized image can still be recognized properly
- Is a better blending method really beneficial

Poisson Blending

- Naive blending causes the discrepancy



Poisson Blending

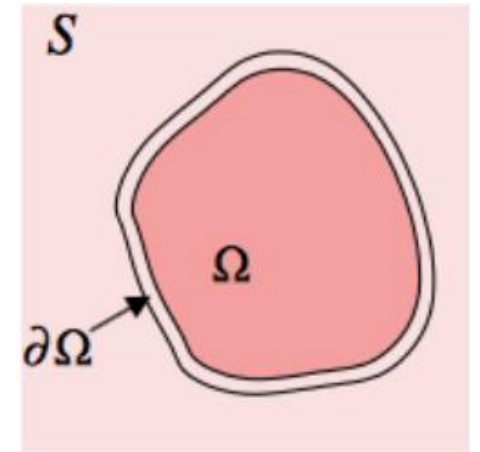
- We are not working on the pixel value but the rate of change – gradients!

1. Start from the border
2. Follow the pattern of resource's gradients
3. Regenerate pictures in the blending area with the pixel value of the background image



Poisson Blending

- Gradients captures the edges information
- Make the gradients inside the blending area as similar as the resource (The **overall contour** remains)
- Border remains the same as the background (**hue**)
- “**Grow**” the whole image from border by following the gradients of the resource
- Not like frequency domain blending by which we blend the two image in different frequencies, the gradient domain blending artificially regenerate the image



Code Demo