

# Image Processing Prog Meeting 10/18

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# Presentation Overview

- ① Environment
- ② Canny Edge Detector
- ③ Canny Edge Detector with Otsu Threshold  
Result
- ④ Future Work
- ⑤ Q & A

# Experiment Setting

- Environment
  - Python 3.10.12
  - OpenCV 4.8.0
  - NumPy 1.23.5
  - Platform: Google Colab

# Canny Edge Detector

Issues Last Week

- gradient calculation and angle transformation
- similar result compared to OpenCV library
- threshold determined by Otsu's thresholding

# Canny with Otsu's Thresholding

method

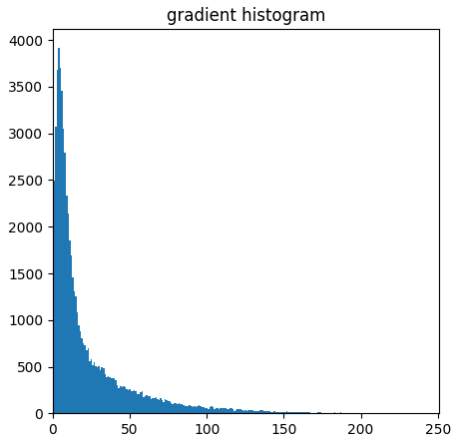


Figure 1: gradient histogram of lenna

# Canny with Otsu's Thresholding

method

- $\tau_h = \mu_0(t) + \sigma_0$
- $\tau_l = \mu_0(t) - 0.3\mu_0$

# Canny Edge Detector

## Result



Figure 2: edge detection comparison of lenna

# Future Work

- improved Canny algorithm for color image



# Thanks for Listening

Q & A