

# Computer Vision Assignment 3 & 4

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### Assignment 3

Mark the following points in a graph. Draw the Hough space for the points (using  $\rho$  and  $\theta$ ). In the Hough space, identify the crossing of the graphs (or the "best possible solution"). Draw the line corresponding to the best solution in the graph.

I constructed the following plots (using the  $\rho = x\cos(\theta) + y\sin(\theta)$  formula):

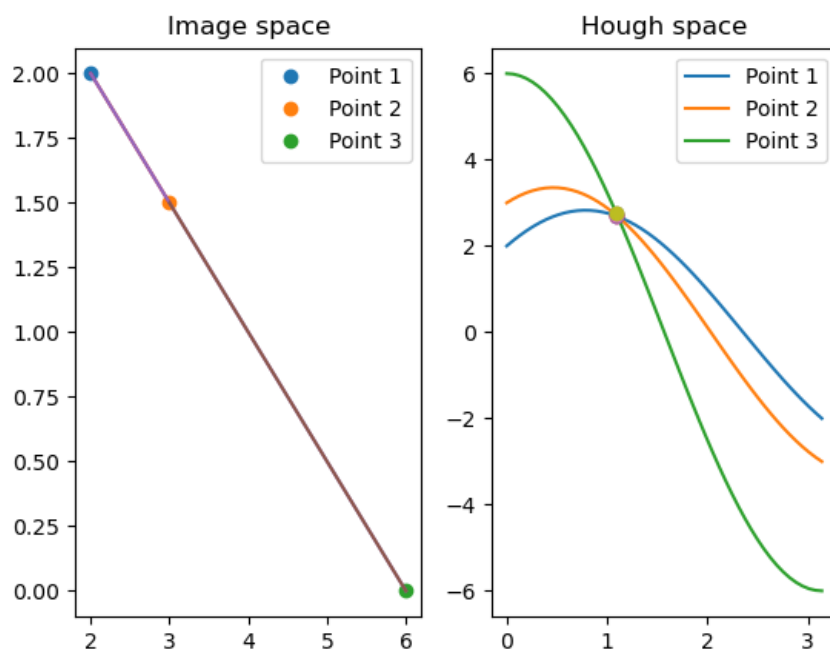


Figure 1: Hough space generated from the points (2, 2), (3, 1.5), (6, 0)

A line has been drawn between the points which crossing each other.

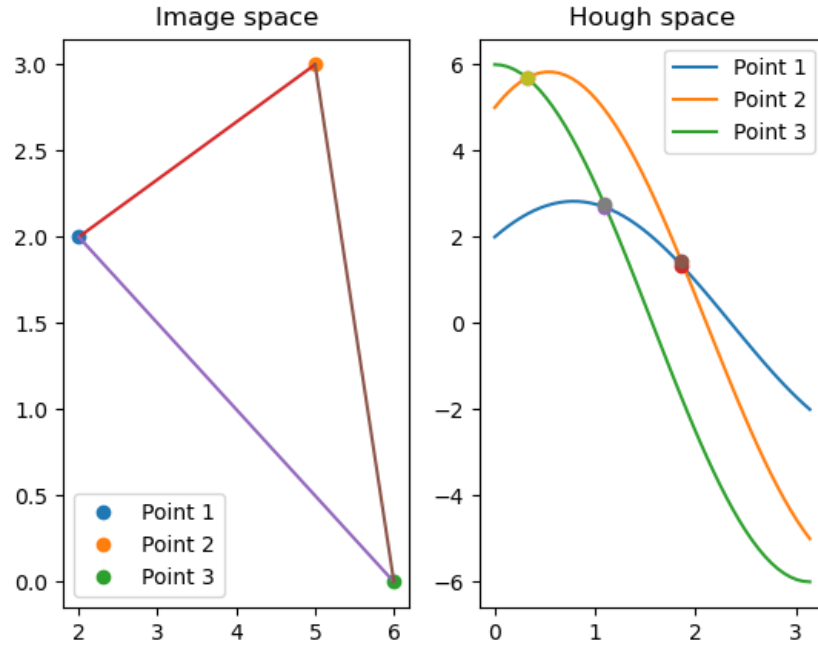


Figure 2: Hough space generated from the points  $(2, 2)$ ,  $(5, 3)$ ,  $(6, 0)$

Here, several crossings appeared, but only once per point combination. As such, I plotted all of the crossings, as none of the available crossings seemed better or worse than the others.