

```
In [283]: runfile('/Users/jonathanroy/Desktop/STARS.py',  
wdir='/Users/jonathanroy/Desktop')
```

Original Image

--Goal: Find North Star

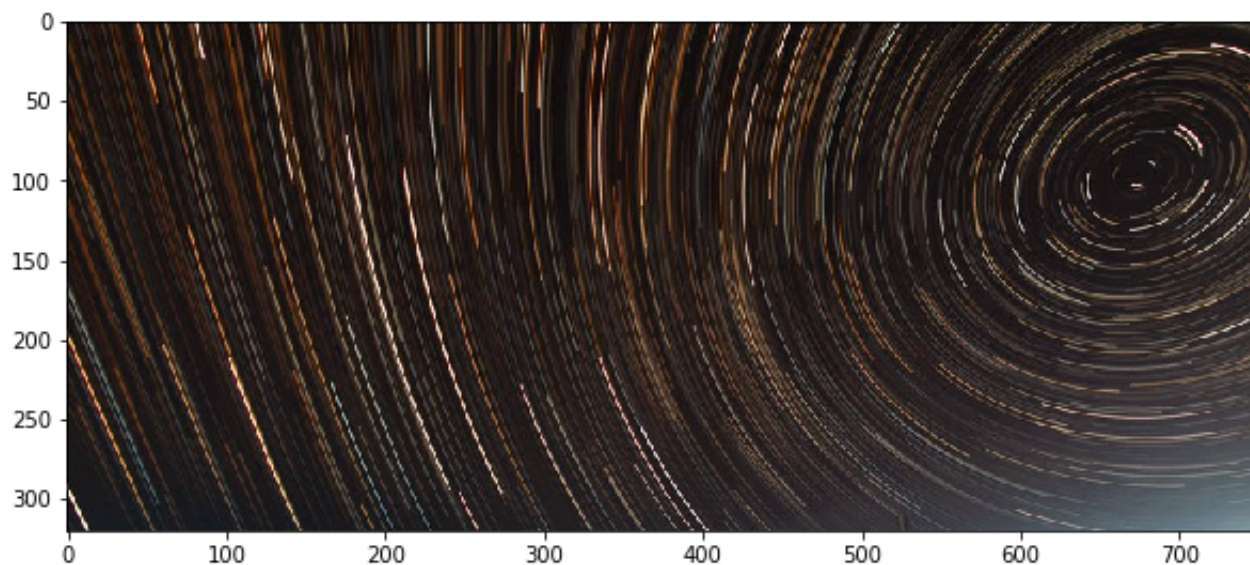
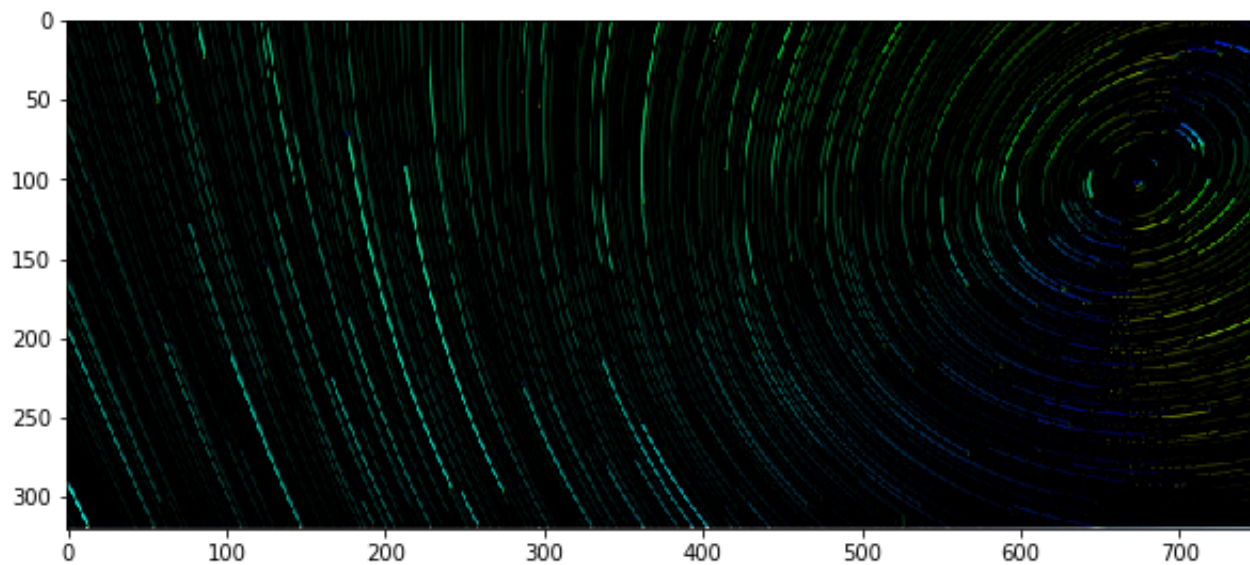


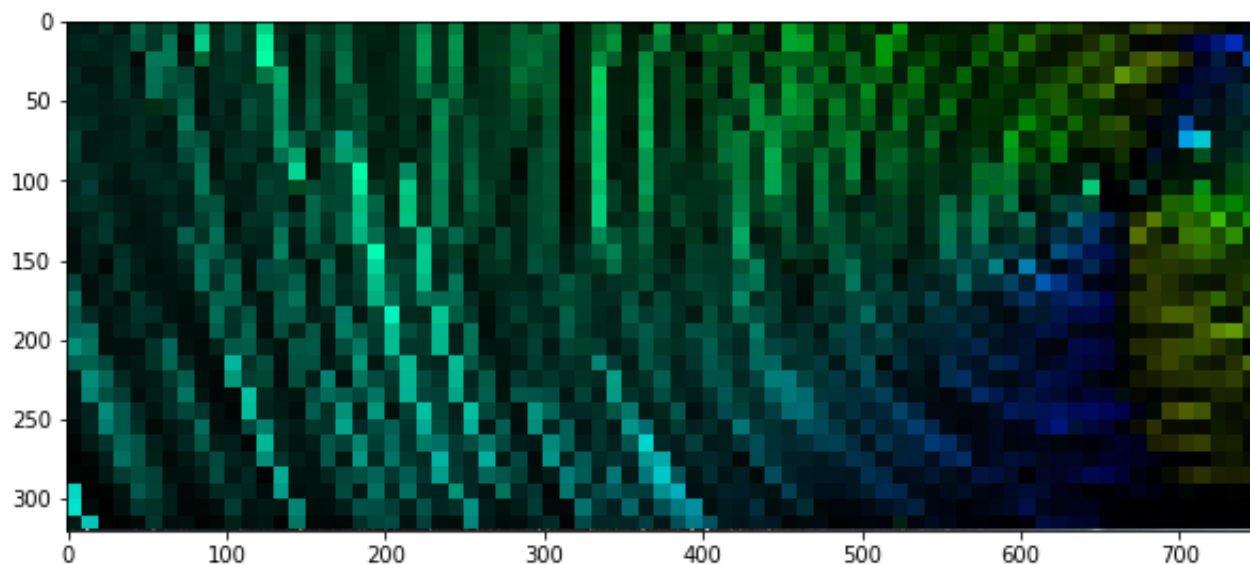
Image after edge detection

--Color represents orientation of edge



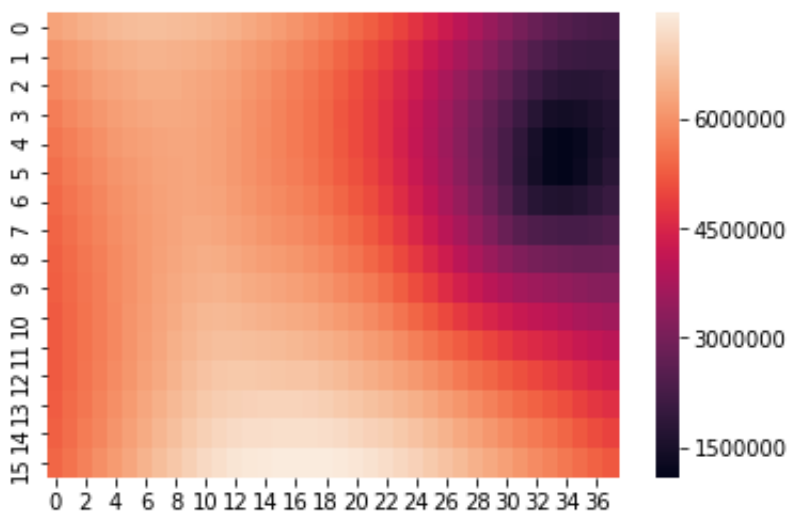
Scaled down edge detected image

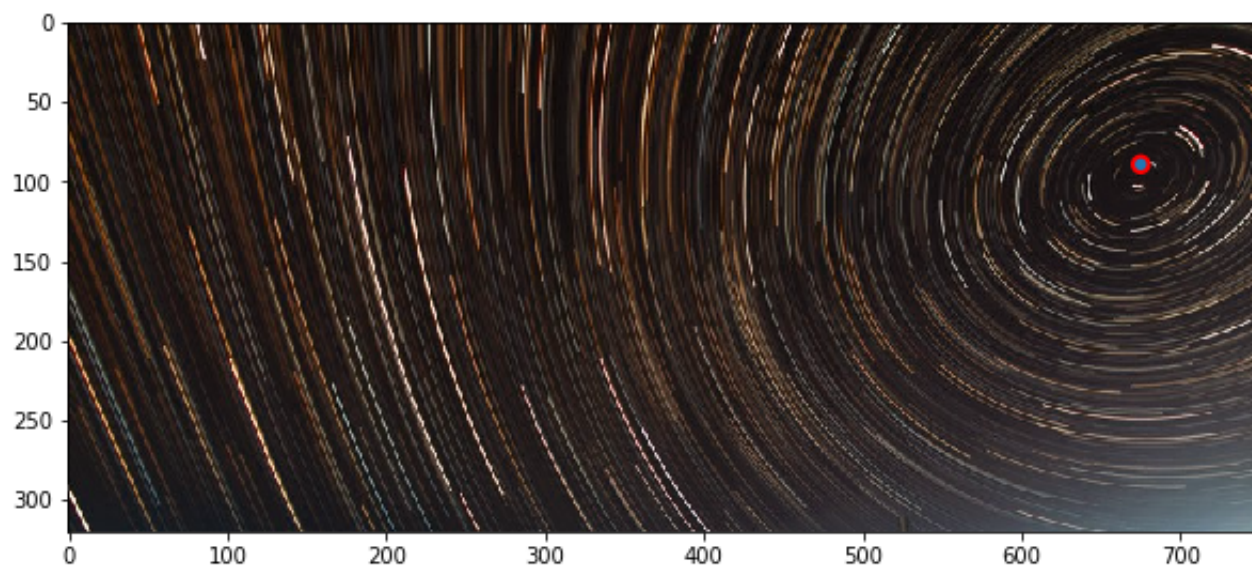
--Scaling down the image into fewer pixels allows search for minimum to run faster



Heatmap representing cost function over image

--The cost function is minimized using the Nelder-Mead method





North Star Coordinates: [89, 675]

In [284]: