

---

## SDC NANODEGREE PROJECT 1 REFLECTION

Throughout doing this project, I have learnt many key skills in preprocessing images for computer vision. One of the biggest takeaways I have had from this project is using Hough Lines to detect lines. I find it very interesting how using a little bit of math, we can teach computers to detect lines, and even restrict computers to only detect lines with certain thresholds.

I had a lot of interesting insights by playing around with various threshold, `min_line_length` and `max_line_gap` values using simple for loops. I think this is an important skill to have as I proceed with upcoming SDC projects.

Potential shortcomings using my current pipeline would be when lane lines are not in the middle of the frame, bad weather conditions with poor lighting, as well as dirty roads with unclear lane lines. This would definitely be a challenge if we try to design a self driving car pipeline for developing or less-developed countries where infrastructures are not in the best form.

All in all, I think this project has been very useful in adding into my skillsets as a computer vision engineer. However, I really think there is still tons to learn to be able to design and hopefully create a robust self-driving car. I am now ready to conquer the next projects!

Special thanks to mentor Kushbook for helping me out with determining the parameters for Hough Lines.

Cheers,  
Nicholas Prayogo