Road Lane Detection for Autonomous Cars

Domain : Computer Vision

Presented By:

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Content

Introduction

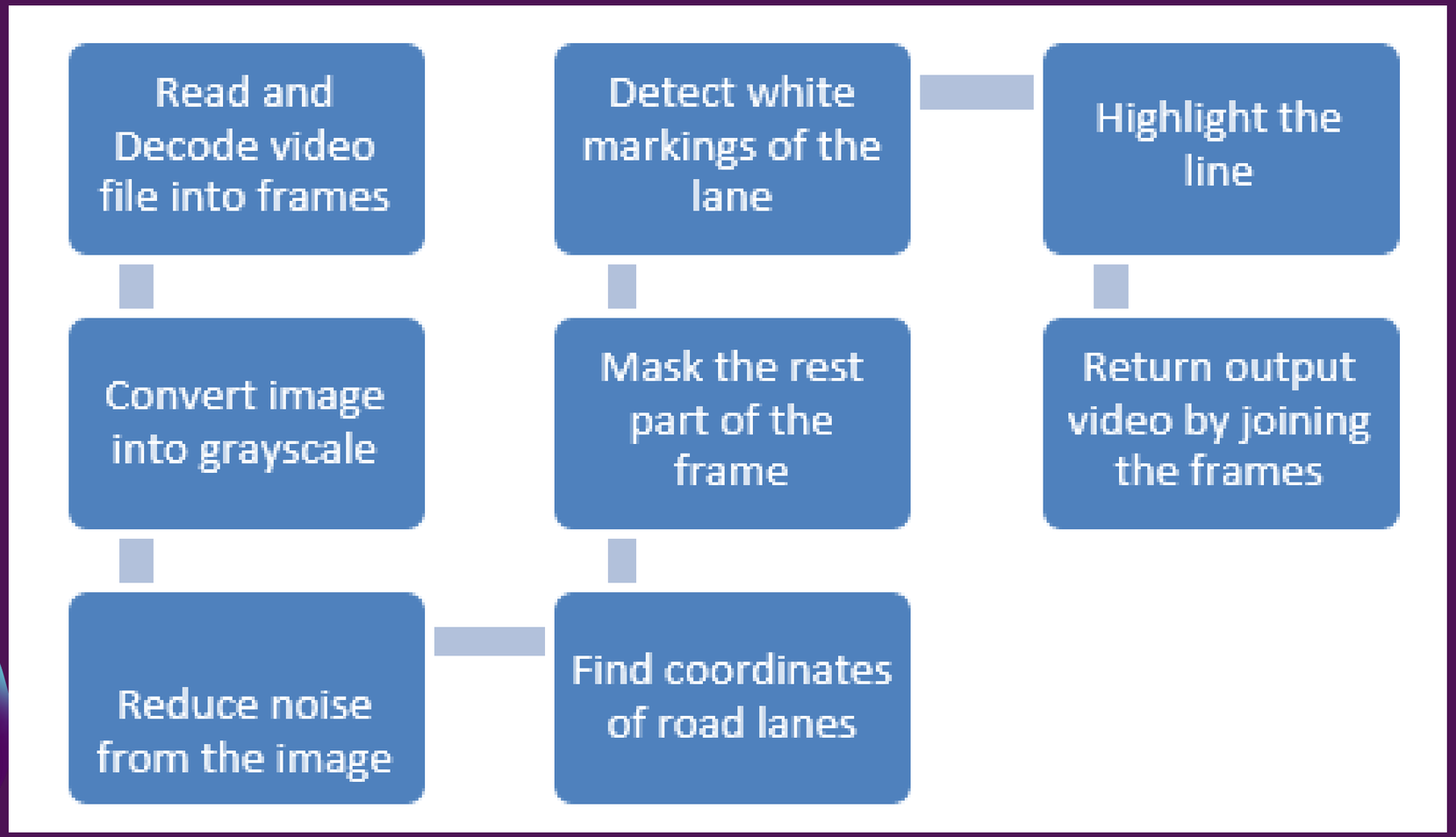
- Lane Line detection is a critical component for self driving cars and also for computer vision in general.

- Using computer vision techniques in Python, we will identify road lane lines in which autonomous cars must run. This will be a critical part of autonomous cars, as the self-driving cars should not cross it’s lane and should not go in opposite lane to avoid accidents.

Objective

- Detect a single lane boundary set from a input video feed in real time.
- Track car position relative to lanes, departure, entry etc.

Flow Diagram

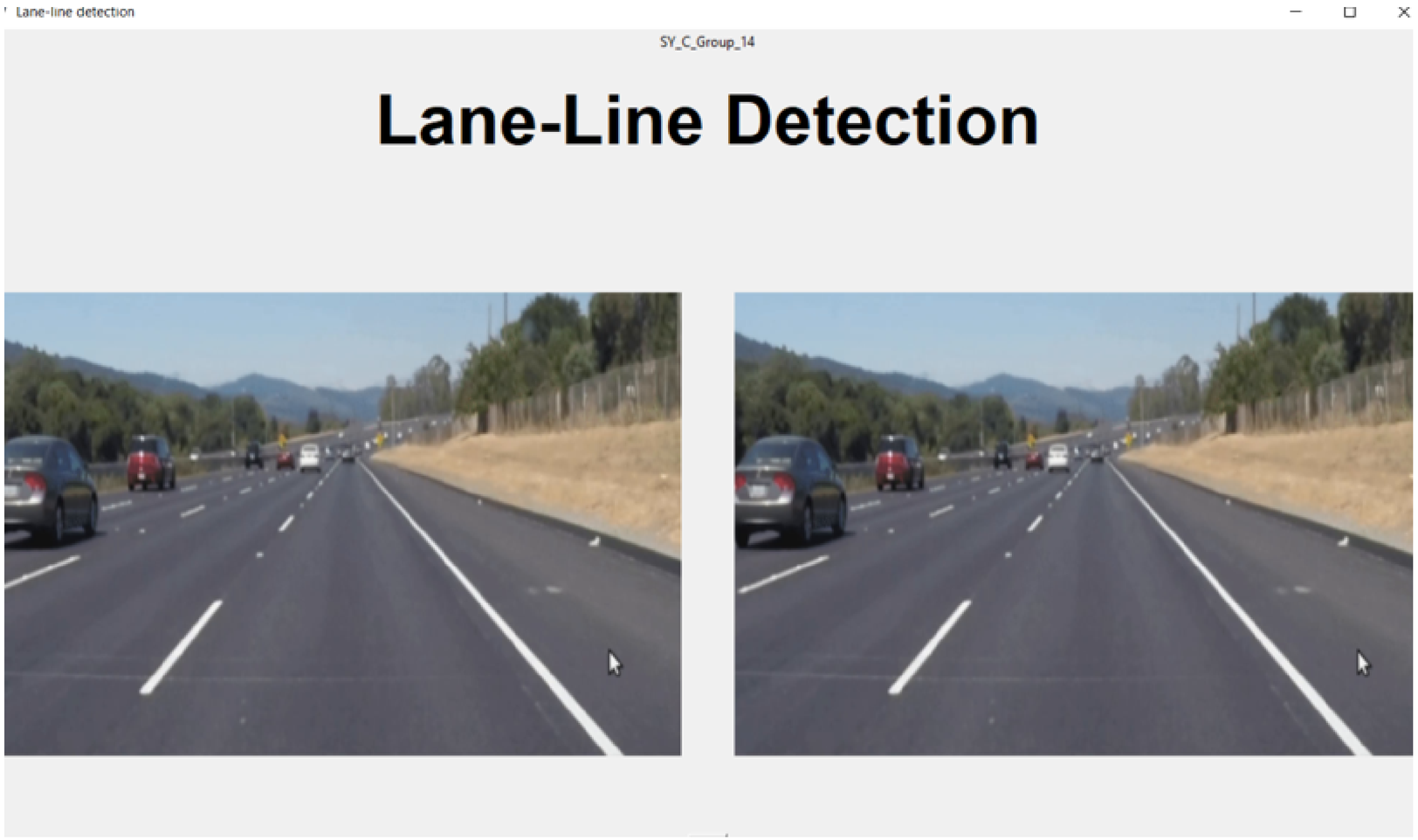


Tools Used

- Tkinter
- Computer Vision (Open CV)
- MoviePy
- Grey Scaling
- Canny Edge Detection
- Hough Transformation
- Python

Methodology

- Tkinter



Methodology

- **Image Processing**

1. Greyscale Conversion of Image
2. Noise Reduction