HOME

HELP

CATALOG

Self-Driving Car Engineer Nanodegree Program

SEARCH

PROGRAM HOME

SYLLABUS

CORE CURRICULUM

1. Computer Vision, Deep Learning, and Sensor 22%

2. Localization, Path Planning, Control, and 10%

EXTRACURRICULAR

Core Curriculum

This section consists of all the lessons and projects you need to complete in order to receive your certificate.

2 PARTS 11 PROJECTS

PART 1

Computer Vision, Deep Learning, and Sensor Fusion

Here, you'll first become an expert in applying Computer Vision and Deep Learning on automotive problems. You will teach the car to detect lane lines, predict steering angle, and more all based on just camera data, along with working with lidar and radar data later on.

- Project: Finding Lane Lines
- Project: Advanced Lane Finding
- Project: Traffic Sign Classifier
- Project: Behavioral Cloning
- Project: Extended Kalman Filters

Estimated time: 81 days

PART 2

Localization, Path Planning, Control, and System Integration

Here, you'll expand on your sensor knowledge to localize and control the vehicle. You'll evaluate sensor data from camera, radar, lidar, and GPS, and use these in closed-loop controllers that actuate the vehicle, finishing by combining all your skills on a real self-driving car!

- Project: Kidnapped Vehicle
- Project: Highway Driving
- Project: PID Controller
- Project: System Integration
- Project: Optimize Your GitHub Profile
- Project: Improve Your LinkedIn Profile

Estimated time: 86 days

SETTINGS

LOGOUT

UP NEXT
Part 1, Lesson 6: Camera Calibration