KOENIG
step forward

KOENIG SOLUTIONS · COURSE OUTLINE

Python Computer Vision: OpenCV & Deep Learning

2 Days
16 HOURS

9
MODULES

13
TOPICS

LEARNING OBJECTIVES

- Manipulate and open images using NumPy
- Use OpenCV to work with image files and draw shapes on images and videos
- Apply image processing techniques such as smoothing and blurring
- Create colour histograms with OpenCV
- Open and stream video with Python and OpenCV
- Detect objects using corner, edge and grid detection techniques
- Build face detection software and segment images with watershed
- Track objects in video and train image classifiers with deep learning

COURSE SYLLABUS

9 Modules, 13 Topics

00

Course Overview and Introduction

01

NumPy and Image Basics

TOPICS

Understand basics of NumPy · Manipulate and open Images with NumPy

02

Image Basics with OpenCV

TOPICS

- Use OpenCV to work with image files
- Use Python and OpenCV to draw shapes on images and videos

03

Image Processing

TOPICS

- Perform image manipulation with OpenCV, including smoothing, blurring, thresholding, and morphological operations
- Create Color Histograms with OpenCV

04

Video Basics with Python and OpenCV

TOPICS

Open and Stream video with Python and OpenCV

05

Object Detection with OpenCV and Python

TOPICS

- Detect Objects, like corner, edge, & grid detection techniques with OpenCV & Python
- Create Face Detection Software
- Segment Images with the Watershed Algorithm

06

Object Tracking

TOPICS

- Track Objects in Video
- Use Python and Deep Learning to build image classifiers

07

Deep Learning for Computer Vision

TOPICS

- Work with TensorFlow, Keras, and Python to train on your own custom images

08

Capstone Project

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

Learn the Way That Suits You

Classroom Training | Live Online Classes (ILO) | Fly-Me-A-Trainer (FMAT) | Flexi (Self-Paced) | 1-on-1 Training

Ready to Get Started?

Talk to a learning advisor about schedules, group training and customised delivery.

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