GTC Transforming Emerging Economies

GTC Training Consulting Group Ltd,
22 Kumasi Crescent,
Off Aminu Kano Crescent,
Wuse 2, Abuja.
Tel: +234(0) 9056761232
Email: enquiries@thegtcgroup.com
Web: www.thegtcgroup.com

Computer Vision with OpenCV and Python

COURSE OVERVIEW

This course introduces participants to computer vision using Python and the OpenCV library. It examines fundamental techniques for image processing, feature detection, object recognition, and video analysis. It is designed to give practical skills in designing vision-based solutions for industries such as security, healthcare, robotics, and automation. Through hands-on coding sessions, participants will build applications that interpret visual data, perform real-time image manipulation, and recognize patterns and shapes.

WHO SHOULD ATTEND?

This course is ideal for data scientists, software developers, AI engineers, robotics developers, and tech enthusiasts who want to build image and video analysis systems. It is also of value to researchers, students, and professionals working in domains that require visual data interpretation. A basic understanding of Python programming and machine learning concepts is recommended.

COURSE OUTCOMES

Delegates will gain the knowledge and skills to:

- Understand the principles and applications of computer vision.
- Use OpenCV to read, process, and analyze images and videos.
- Perform operations like edge detection, filtering, and object tracking.
- Implement facial and object recognition systems.
- Work with contours, color spaces, and geometric transformations.
- Develop real-time computer vision applications using Python.
- Integrate computer vision models into practical workflows.
- Apply computer vision techniques to solve real-world challenges.

KEY COURSE HIGHLIGHTS

At the end of the course, you will understand;

- The basics of computer vision and OpenCV setup.
- Image processing: resizing, filtering, and thresholding.
- Object detection and tracking in real-time.
- Feature extraction and pattern recognition.
- Face detection and image classification.
- Contour detection and shape analysis.
- Working with videos and live camera feeds.
- Building mini-projects for real-world use cases.
- Introduction to deep learning integration with OpenCV.
- Hands-on labs and guided exercises with Python.

All our courses are dual-certificate courses. At the end of the training, the delegates will receive two certificates.
1. A GTC end-of-course certificate
2. Continuing Professional Development (CPD) Certificate of completion with earned credits awarded