



Karachi AI – Certified Professional Programs: Program Brochure



[KARACHI AI]

ENABLING EVERYONE TO APPLY ARTIFICIAL INTELLIGENCE

WHO WE ARE?

APPLIED ARTIFICIAL INTELLIGENCE COMMUNITY



AWARENESS



ENGAGEMENT



EMPOWERMENT



[KARACHI AI]

ENABLING EVERYONE TO APPLY ARTIFICIAL INTELLIGENCE



Mesum RazaFounder Karachi.Al



Ali RazaBoD – Academia



Noman Khalid BoD – Corporate

OPS TEAM



Mustafa Ali Manager Social Media



Haider AliManager Administration



M. MudassirManager Industry Relations



Huzaifa KamranOperational Team



Pardeep Kesnani Operational Team



M. Talha Khan Operational Team

The Board:

Mesum is the founder Karachi AI and Chief trainer at Lucid Data Analytics, by qualification he is a Oxford Brookes Grad and an ACCA who turned his back on conventional practice and diverted his career along the lines of Analytics, & Data mining. He has specialized in AI & Machine Learning and holds numerous Community Leadership positions in Data Analytics and AI Space.

Noman is the founding partner and chief data architect at Love For Data, a premier data science and decision support consulting company. He specializes in deriving value from organizational data using advanced data science techniques. He is a published researcher, and has a host of certifications on data science analytics.

Ali is electronics engineer by book, software architect and technopreneur by passion, he received masters degree in electronics engineering which involved research focused on machine learning. He is currently working as a CTO at Bitwits Pvt I td

CERTIFIED PROGRAMS







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A COMPLETE SUITE OF COURSES WITH END TO END JOURNEY

Become A Community Member **Computer Science Track** Industry Participate into our Quarterly onsite / online meetups to get yourself introduced Apprenticeship **Business Professional Track** To Data Science & Al Ecosystem Create Scalable Data Pipelines Learn the Basics of Data Science Applied Industry Experience (CPD) Dive into Business Analytics A crisp course into Applied Python. A 360* course on leading Applied A Data Engineering course to Create. Complete any of the track and gain KARACHI Aİ Statistics & Machine Learning Business Intelligence for Analytics Maintain and Deliver Data Projects on Cloud rigorous industry experience of 3 years CERTIFIED ® FZSI KARACHI AI *** CERTIFIED DATA SCIENTIST Certified [KARACHI AI] For Students & Backgrounds of Marketing, Business Studies, ACCA/CA/CIMA/ICMAP, For CS, CS Focused Engineering, & Other Demonstrable relevance to Data Science. Actuarial Sciences, Health Care & Bio Sciences, Non-CS Engineering, Social Sciences Backgrounds with 2 Years of Technical roles. Business Analytics & Machine Learning

Some Nitty Gritty Comparison



ENABLING EVERYONE TO APPLY ARTIFICIAL INTELLIGENCE

CERTIFIED PROFESSIONAL ACADEMY (CPA)

Python Programming

SQL & NoSQL

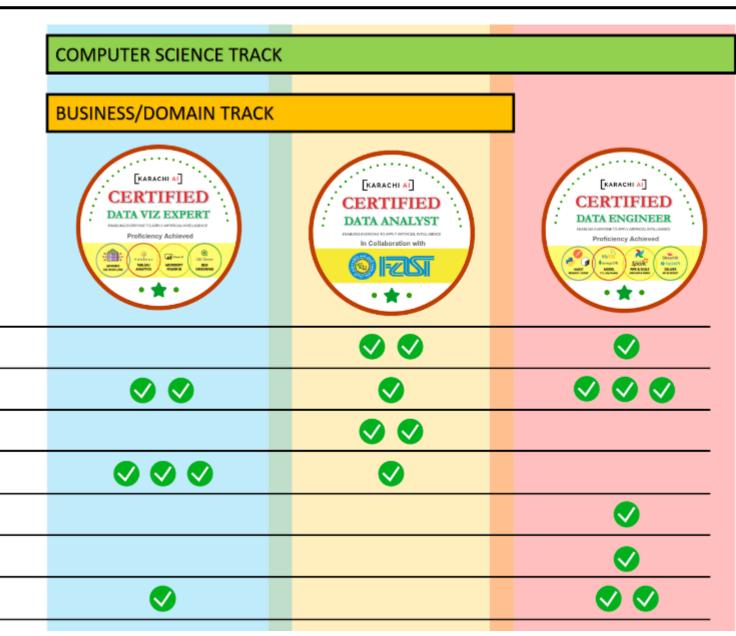
ML & Statistics

Business Intelligence

Big Data Systems

Cloud Computing

Data Modelling & ETL

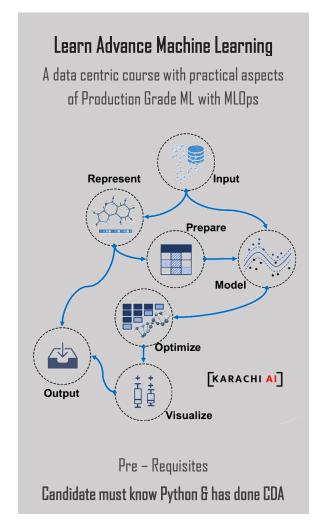


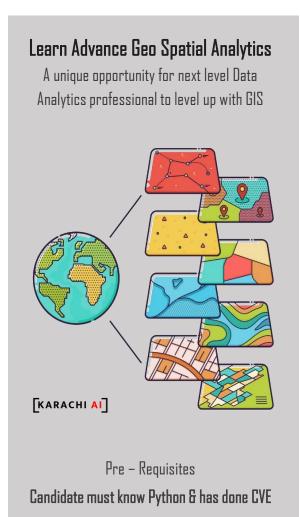
CPA: SHORT SPECIALIZATION COURSES



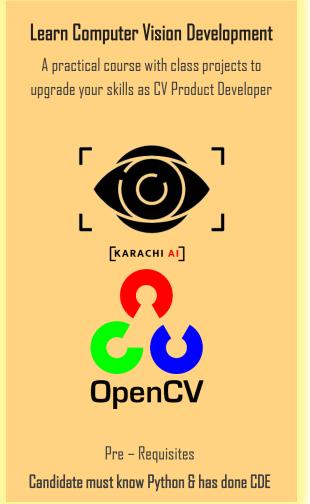
Complete one of tracks and Enroll into Specializations to prove your proficiency in Modern world subjects!

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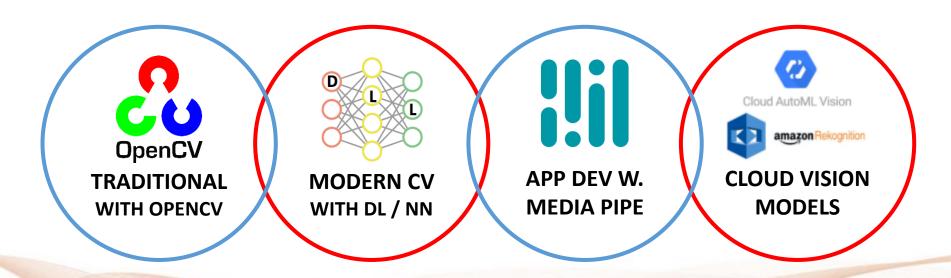


MORE LAUNCHING SOON ... FOLLOW US TO STAY UPDATED

[KARACHI AI]

SPECIALIST COMPUTER VISION

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PROGRAM BROCHURE: THE IDEA BEHIND

Pre-amble / the Need:

With advances in machine learning (ML), the field of computer vision and its applications are growing by leaps and bounds, triggering transformations across industries and in daily life. Deep Learning & Computer Vision is currently one of the most increasing fields of Artificial Intelligence and Companies like Google, Apple, Facebook, Amazon are highly investing in this field. Deep Learning & Computer Vision jobs are increasing day by day & provide some of the highest paying jobs all over the world. Computer Vision allows us to see the world & process digital images & videos to extract useful information to do a certain task from classification, object detection, and much more. Python is one of the most popular used programming language in Deep Learning and Computer Vision.

About / Introduction:

This Brand New and Modern Computer Vision Specialization will teach you everything you will need to know to learn the fundamentals of computer vision with traditional processing in Open CV and modern deep learning based SOTA models to consume.

Impact & Outcome:

The curriculum claims to strengthen the existing Certified Professionals and Established Software Engineering professionals to take on the new budding field of Computer Vision. Graduates can join established organizations or startups practicing Computer Vision as Jr. CV Developer, CV Consultant or CV Researchers to serve wide variety of use cases available across industries. Freelancing in CV is also a lucrative subject and remote jobs are very open to CV developers around the world.



1 Day of Weekend

For 2 Months

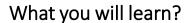




PROGRAM BROCHURE: ELIGIBILITY & OUTCOME

Who is this Specialization for?

For Aspiring people who want to become Jr. CV Developer, CV Consultant or CV Researchers and Managers looking to manage Computer Vision Projects/teams at their organizations. Strong Programming and Basic Knowledge of ML is assumed in this course. Students interested in this program should have already earned a degree or equivalent practical experience in any of the following fields: Computer Science, Software Engineering, Robotics, or any CS driven majors with aptitude to learn this new field.



In 8 Weeks, You will be able to grasp the base of Traditional Computer Visio with Open CV and Apply fundamental use cases from the real world. You will also develop understanding of the Modern ERA of Deep learning based CV and Cloud Strategies to deploy scalable solutions.

- Get Hands-on Introduction to Modern & Classic CV, Open CV & Image Processing. Including Functions, Image Gradients, Gradients & Geometric Transformations in Open CV. You will also be introduced to Computational Photography, Image Segmentation & Feature Detection
- Get Introduced to Pre-Trained Libraries for Landmark / Face Detection with Model Training with UI Development knowledge for Prototyping and delivering Computer Vision Applications in Production
- Get Introduced to Modern Computer Vison with Deep learning and learn the idea behind the worlds most advanced and significant models SOTA that led to this CV / AI revolution. You will also get introduced to Pre-Built Packages (Media Pipe) and Cloud Services on Computer Vision



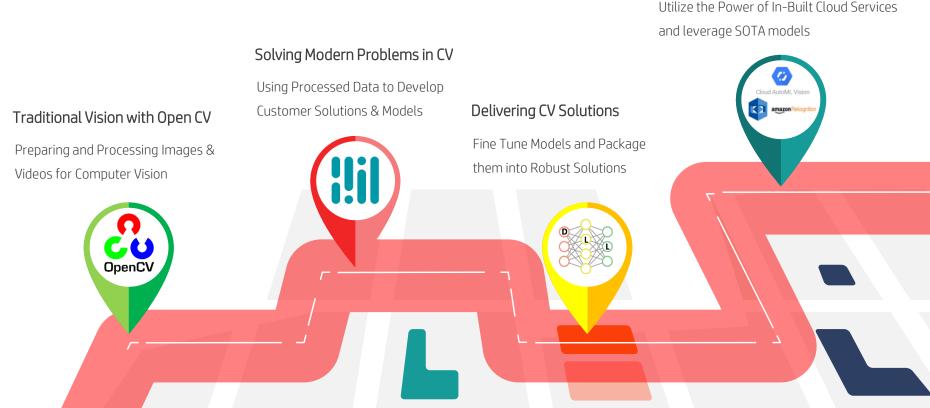
1 Day of Weekend

For 2 Months





PROGRAM BROCHURE: SPECIALIZATION JOURNEY



Modern CV (DL) & Cloud Services

Utilize the Power of In-Built Cloud Services



For 2 Months





PROGRAM BROCHURE: ESSENTIAL INFO







1. Duration & Timings

3.5 MONTHS ON EVERY SATURDAY FROM 2 PM - 8 PM

2. Mode & Venue

ON-SITE CLASSES HELD AT SANDBOX, MAQBOOLABAD ROAD, SHAHRA E FAISAL, KARACHI.

3. Accreditation / Collaboration

ALL GRADUATES WILL BE ENDORSED & RECOGNIZED
OFFICIALLY BY KARACHI AI & AL HAMD ACADEMY

4. Graduation

ALL GRADUATES WILL RECEIVE A CEREMONY, PHYSICAL CERTIFICATE, AND ONLINE VERIFIABLE CERTIFICATE



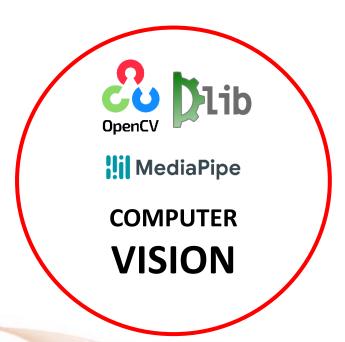
1 Day of Weekend

For 4 Months





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Pre-requisites:



- 1. Hands-On rigor on Python and Coding Environment
- 2. Hands-On Applied Machine Learning Experience
- -- Week Wise Plan:
- Week 1: Introduction to Modern & Classic CV, Open CV & Image Processing.
- Week 2: Functions, Image Gradients, Gradients & Geometric Transformations.
- Week 3: Introduction to DLib, Landmark / Face Detection & Model Training.
- Week 4: Creating Vision Applications and Productionalizing Models.
- Week 5: Computational Photography, Image Segmentation & Feature Detection.
- Week 6: Introduction to Deep Learning & Modern CV Architectures (YOLO, RCNN)
- Week 7: Applied Computer Vision with Media Pipe & Streamlit for WebApps
- Week 8: Cloud Computer Vision Al Services (Amazon, Google Cloud & Azure)



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Course Details:

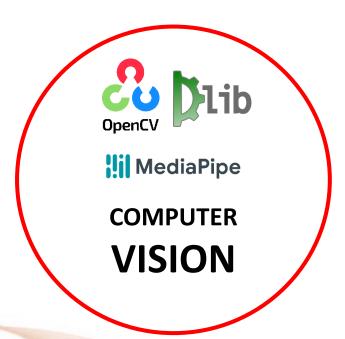


- 1. Basics / Applications of CV & the Science Behind
- 2. Elementary Python / Notebook Refresher for CV
- -- Week 1:
- 1. Image Manipulation and Processing using PIL / Numpy
- 2. Open CV Basics, and Basic Image Operations
- 3. Processing Images and Videos in Python Open CV
- 4. Image Blending, Extraction and Thresholding Operations
- 5. Image Color Enhancements / Reduction, Filtering

LAB: Creating Snapchat Style Filters with Python & OpenCV



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Course Details:

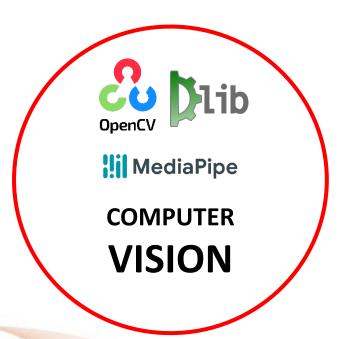


- -- Week 2:
- 1. Introduction to OpenCV Functions & Applied Manipulation
- 2. Image Gradients and Detecting Colors in Images
- 3. Advance Color Filtering & Contour Detection
- 4. Image Pyramids and Seamless Cloning
- 5. Image Swapping, Morphing and Averaging in Python

LAB: Face Swapping with Open CV in Python



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Course Details:

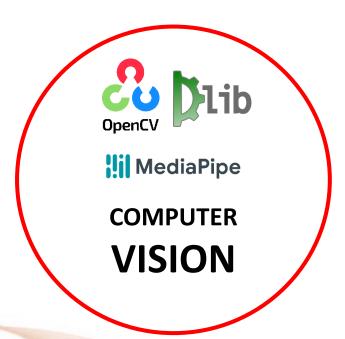


- -- Week 3:
- 1. Using Low Level (C++ Libraries) for Computer Vision
- 2. Introduction and Applications of DLib library in Python.
- 3. Landmarks and Facial Landmark Detection & Stabilization
- 4. Training Custom facial Landmark Detector
- 5. Face Detection with DLib Python

LAB: Face Skin Detection with Machine Learning



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Course Details:

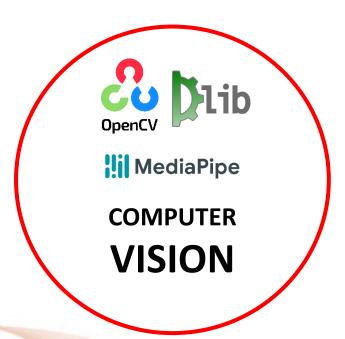


- -- Week 4:
- 1. Building GUIs with Tkinter in Python.
- 2. Image Annotation and Mouse Interactions.
- 3. Tracking Variations in Frame & Object Tracking
- 4. Building Quick RPA with PyAutoGUI
- 5. Automating Games with Template Matching

LAB: Automating Real Life Task with Pattern Matching



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Course Details:

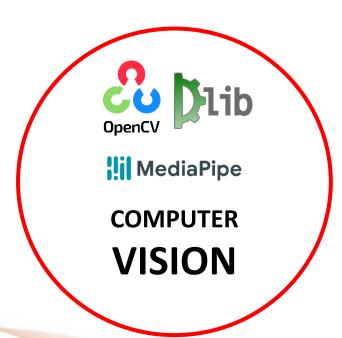


- -- Week 5:
- 1. Manipulation With Computational Photography.
- 2. Segmentation with Difference Algorithms.
- 3. Hough Transformations for Approximate Matching.
- 4. Affine Transformations for Angle and View Change
- 5. Corner, Feature Detections & Geometric Transformations.

LAB: Video Stabilization in Python



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Course Details:



- -- Week 6:
- 1. Introduction to Deep Learning in Python.
- 2. Functions, Optimizations, Features and Hyper Parameters.
- 3. Image Classification using Caffe & TensorFlow Models.
- 4. Object Detection with SoTa Models (SSD & Yolo).
- 5. Image Segmentation with Masked RCNN Model.

LAB: Full Body Pose Estimation with Python



PROGRAM BROCHURE: INSTRUCTOR PROFILE



Pardeep is a Certified Data Scientist and has been involved in the Data Analytics field for the past 3+ years. He has diverse experience in various industries including Computer Vision, Asset Management Companies, Data Centers & FMCG. He is known for his Strategic & Analytical mindset for handling key problems for organizations.

Pardeep has also practiced Computer Vision and is skilled in developing Vision Systems, Model Deployment and Skillful applications of OpenCV.

Key Skills taught: Image Manipulation, Enhancement, and Transformation, Working with Videos, Image Classification, Object Detection, Image Segmentation & Localization.



Mustafa is a Google Certified Professional Data Engineer and Machine Learning specialist. 3+ years of industrial experience in Designing, Building and Operationalizing large scale enterprises data solutions and application with Google Cloud. Worked as Computer Vision expert at Bleed AI and Exclusive Solutions Pvt. Ltd.

Mustafa has also worked into Open CV and has been into hands-on implementations in various projects.

Key Skills taught: Using External Packages for CV, Applications of Media Pipe, Development and Leveraging Off the Shelf Cloud Computer Vision Models and Services.



1 Day of Weekend

For 4 Months





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OUR PROUD INDUSTRY APPRENTICE PARTNERS



































MEDWORKS SIRCONSULTANTS

OUR ACADEMIA PARTNERS

OUR SUPPORT ASSOCIATIONS

















PROGRAM BROCHURE: CLOSURE

For More Details on Registrations:

HEAD ON!:

https://karachidotai.com/computervisionspecialist

STAY UPDATED!

facebook.com\computervisionspecialist



1 Day of Weekend

For 4 Months





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ARE YOU READY FOR THE FUTURE WITH ARTIFICIAL INTELLIGENCE?

CONNECT WITH US LETS COLLABORATE TO BUILD AI ECOSYSTEM





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