PwC's Academy
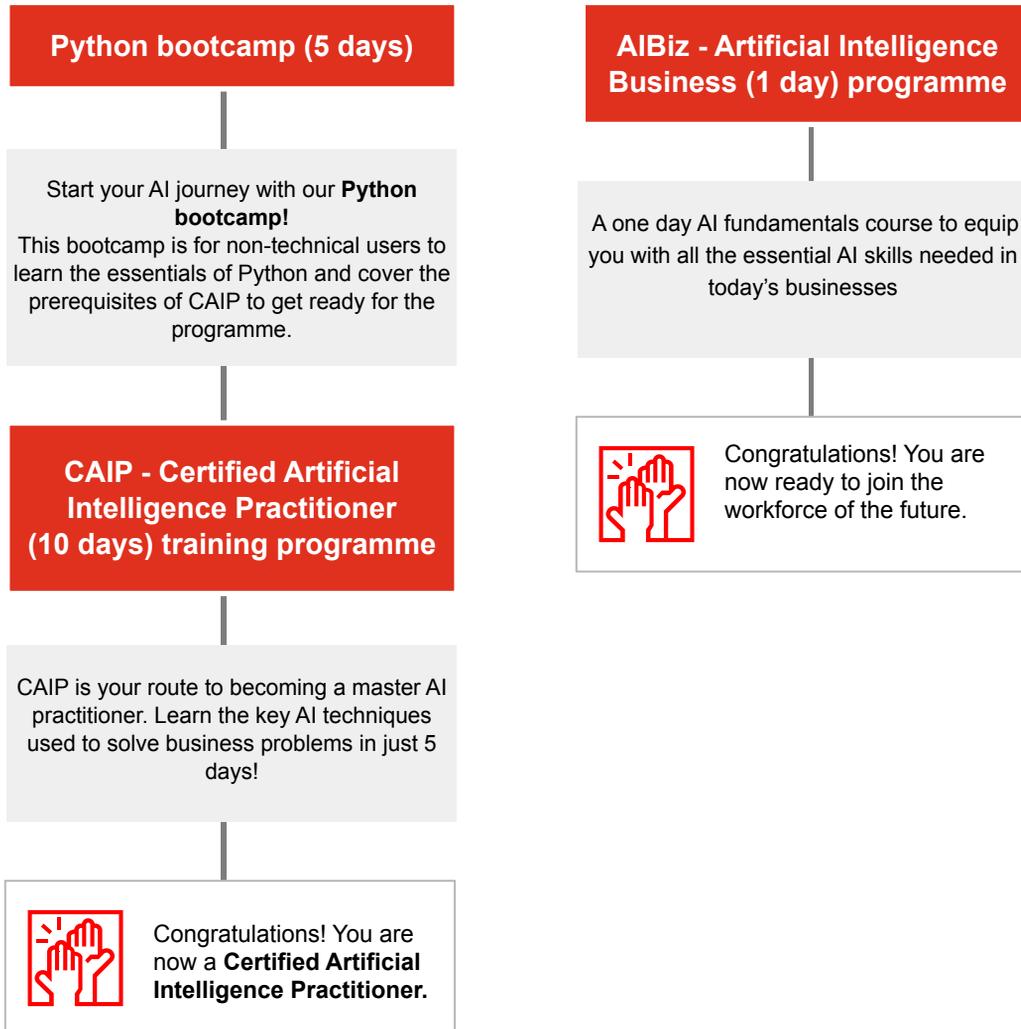# Digital Academy

Preparing for the jobs of the future

pwc

For any organisation to successfully undergo a digital transformation, business and technology leaders must understand the importance of the elements of digital transformation, their uses and the opportunities and risks associated with them.

According to a PwC survey, **46%** organisations aim to Implement upskilling and continual learning initiatives that include AI.

Our diverse range of qualifications and short courses address the knowledge and skills gap of our clients and train their workforce to drive their digital transformation journey. Designed by PwC's digital and education experts with decades of industry experience from across PwC's network, and accredited by Certnexus, these courses incorporate global best practices and are designed to suit the preferred learning styles of our clients.

Python bootcamp (5 days)

Start your AI journey with our **Python bootcamp!**
This bootcamp is for non-technical users to learn the essentials of Python and cover the prerequisites of CAIP to get ready for the programme.

CAIP - Certified Artificial Intelligence Practitioner (10 days) training programme

CAIP is your route to becoming a master AI practitioner. Learn the key AI techniques used to solve business problems in just 5 days!

Congratulations! You are now a **Certified Artificial Intelligence Practitioner.**

AIBiz - Artificial Intelligence Business (1 day) programme

A one day AI fundamentals course to equip you with all the essential AI skills needed in today's businesses

Congratulations! You are now ready to join the workforce of the future.

Awarded
Most innovative ATP of the year
By Certnexus

CERTNEXUS
Authorized Training Partner

Most Innovative ATP of The Year
PwC Middle East Academy

Certified Artificial Intelligence Practitioner (CAIP) training programme

Starting from USD 1,550

Artificial intelligence (AI) and machine learning (ML) have become an essential part of the toolset for many organisations. When used effectively, these tools provide actionable insights that drive critical decisions and enable organisations to create exciting, new, and innovative products and services. This course will show participants how to apply various approaches and algorithms to solve business problems through AI and ML, follow a methodical workflow to develop sound solutions, use open source, off-the-shelf tools to develop, test, and deploy those solutions, and ensure that they protect the privacy of users.

Key outcomes

In this course, participants will implement AI techniques in order to solve business problems. In just 5 days, participants will be able to:

- Specify a general approach to solve a given business problem that uses applied AI and ML
- Collect and refine a dataset to prepare it for training and testing
- Train and tune a machine learning model
- Finalise a machine learning model and present the results to the appropriate audience
- Build linear regression models
- Build classification and clustering models
- Build decision trees and random forests
- Build support-vector machines (SVMs) and artificial neural networks (ANNs)
- Promote data privacy and ethical practices within AI and ML projects

Who is it for?

This course is designed for practitioners who are seeking to demonstrate a vendor-neutral, cross-industry skill set within AI and with a focus on ML that will enable them to design and implement an AI solution.
It is suitable for student programmers looking to develop additional skills to apply machine learning algorithms to business problems, or a data analyst who already has strong skills in applying math and statistics to business problems, but is looking to develop technology skills related to machine learning.

Certification

By the end of this course, participants will sit for the CAIP exam. Upon the successful completion of the exam, participants will be awarded with the Certified Artificial Intelligence Practitioner Certificate by CertNexus.

Course outline

Solving business problems using AI and ML

Topic A: Identify AI and ML solutions for business problems

Topic C: Formulate a machine learning problem

Topic D: Select appropriate tools

Collecting and refining the dataset

Topic A: Collect the dataset

Topic B: Analyze the dataset to gain insights

Topic C: Use visualizations to analyse data topic

D: Prepare data

Setting up and training a model

Topic A: Set up a machine learning model

Topic B: Train the model

Finalising a model

Topic A: Translate results into business actions

Topic B: Incorporate a model into a long-term business solution

Building linear regression models

Topic A: Build a regression model using linear algebra

Topic B: Build a regularised regression model using linear algebra

Topic C: Build an iterative linear regression model

Building classification models

Topic A: Train binary classification models

Topic B: Train multi-class classification models

Topic C: Evaluate classification models

Topic D: Tune classification models

Building clustering models

Topic A: Build k-means clustering models

Topic B: Build hierarchical clustering models

Building advanced models

Topic A: Build decision tree models

Topic B: Build random forest models

Building support-vector machines

Topic A: Build SVM models for classification

Topic B: Build SVM models for regression

Building artificial neural networks

Topic A: Build multi-layer perceptrons (MLP)

Topic B: Build convolutional neural networks (CNN)

Topic C: Build recurrent neural networks (RNN)

Promoting data privacy and ethical practices

Topic A: Protect data privacy

Topic B: Promote ethical practices

Topic C: Establish data privacy and ethics policies

Programme details

Our CAIP training programme will be delivered in a blended format with face to face classes, live streaming with additional study materials, interactive games, quizzes and discussion forums.

	Package 1 USD 1550	Package 2 USD 1650	Package 3 USD 1700
Exam voucher	✓	✓	✓
Study book	✓	✓	✓
Course material	X	✓	✓
Online Python exercises	✓	✓	✓
Python files	X	X	✓

Python bootcamp

USD 550

Python has been around for decades, but it's still one of the most versatile and popular programming languages out there. Whether you're relatively new to programming or have been developing software for years, Python is an excellent language to add to your skill set. In this course, participants will learn the fundamentals of programming in Python and develop applications to demonstrate a grasp of the language.

Learning outcomes

In this course, participants will develop simple command-line programs in Python and will:
- Set up Python and develop a simple application
- Declare and perform operations on simple data types, including strings, numbers, and dates
- Declare and perform operations on data structures, including lists, ranges, tuples, dictionaries, and sets
- Write conditional statements and loops.
- Define and use functions, classes, and modules
- Manage files and directories through code
- Deal with exceptions

This course also covers the requirements to start the Certified AI Practitioner programme.

Programme outline

Python basics	Numpy & Pandas: Data analysis with Python
String and list operations	Loading data
Data structure	Cleaning data
Data types	Feature engineering
Fundamentals of statistics for data analysis	**Matplotlib & Seaborn: Data visualisation with Python**
Descriptive analysis	Creating visuals using matplotlib
Correlation vs Causation	Visual analytics
Outlier detection	Scatter plot, histogram, box plot
Basic programming with Python	**Scikit-learn: Machine Learning with Python**
Conditional loops	Building a machine learning model
If statements	Model hyperparameters
For statements	Topic C: Establish data privacy and ethics policies
While statements	

CertNexus Artificial Intelligence (AIBiz) training programme

USD 250

Artificial Intelligence (AI) is not just another technology or process for businesses to consider – it's a disruptive force, one that promises to deliver an entirely new level of results for all aspects of business. It has transformed the way businesses function and has proven to be beneficial for the organisations in reducing operational costs, increasing efficiency, growing revenue and improving customer experience. To thrive in this transforming business landscape, it is vital to harness the power of AI. The AIBiz course is streamlined to enable business decision makers to drive informed decision for their AI strategy.

Key outcomes

In this course, participants will understand the fundamentals of AI in business using real-life business cases. In just 1 day, participants will be able to:

- Learn AI concepts
- Derive approaches for Machine Learning and Deep Learning
- Understand the fundamentals of AI implementation
- Understand the impact of AI

Who is it for?

This course is primarily designed for managers, business leaders, and other decision makers who are interested in growing the business by leveraging the power of AI. Other individuals who wish to explore basic AI concepts are also candidates for this course.

Certification

By the end of this course, participants will sit for the AIBiz exam. Upon the successful completion of the exam, participants will receive the micro credential AIBiz, by CertNexus.

Programme outline

AI fundamentals
AI concepts
Approaches to Machine Learning and Deep Learning

AI implementation
Data Science
Search Engines
Natural Language Processions
Computer Vision
Robotics

The impact of AI
Benefits of AI
Challenges of AI
Business use cases for AI

Meet the trainer

Semih Kumluk, Ph.D. (abd) M.Sc. CAIP

Semih is the Digital Training Manager at PwC's Academy. He is a well versed professional with work experience spanning over 10 years in FMCG, telecommunications and consultancy. He has delivered many trainings on Data Analytics, Design Thinking, Branding, Project Management and other subjects in his areas of expertise. Semih is a strong advocate of emerging technologies and digitalisation, remains actively involved in discussions around the early adaptation of these technologies and aspires to inspire others to improve their knowledge.

He has the unique combination of business and data analytics skills; with his experience in different parts of the business he is able to analyze and interpret all kinds of business data effectively He has delivered keynote sessions in international conferences like GITEX Technology Week (Dubai), AI Masters (Berlin), Strata Data Conference (London), Telco AI Summit (Dubai), World Class IT Transformation and Artificial Intelligence (Frankfurt), Turkcell AI Meet Up (Istanbul) to increase the awareness of senior executives on these topics.Semih also secured the 1st runner-up position in PwC's global AI competition.

About PwC's Academy

PwC's Academy is the education and training business of PwC. Our training programmes build on the experience of having solved important problems in the Middle East for over forty years.

Our world class trainers bring the collective knowledge of dedicated Academy staff and commercial expertise from the PwC global network to deliver training solutions with an immediate impact. We blend technical knowledge with behavioural competencies to build on what people know, how they think and what they can do.

This is what it means to be **'Trained by PwC'.**

About the awarding body

CertNexus is the global purveyor of vendor neutral, emerging technology certifications and micro-credentials for IT, business, and security professionals. CertNexus' exams meet the most rigorous development standards possible, which outline a global framework for developing personnel certification programs to narrow the widening skills gap.

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