TEPC06 : Certified Python Programmer for Data Science (CPPDS) (อบรมเชิงปฏิบัติการพร้อมสอบประกาศนียบัตรในระดับสากล)

Description :

NEW **Program Certified by iTrain Asia Pte Ltd**

หลักสูตรออนไลน์ที่ผู้เรียนจะได้เรียนรู้ขั้นตอนพื้นฐานของการทำ Data Science ไปจนถึงวิธีการวิเคราะห์ข้อมูลต่างๆ อย่างถูกต้องและมีประสิทธิภาพด้วย "Python" ซึ่งถือเป็นภาษาโปรแกรมเอนกประสงค์ที่นักพัฒนาหลายคนนิยมนำมาใช้ในการทำ Data Science

เมื่อผู้เรียนได้ผ่านการเรียน และทดสอบความรู้และความสามารถตามกำหนดเกณฑ์ของหลักสูตร จะได้รับ E-Certificate และ Digital Badge ในระดับสากล

Instructor :

Training Date : **6-10 November 2023**

fee : **34000 ฿** (ราคายังไม่รวม Vat 7%)

Days & Duration : **5 Day(s) | 30 Hour(s)**

Time : **09:00:00 - 16:00:00**

Language : **English**

Venue : **Online by Zoom**

Type : **Online**

Category : **Professional Certification Program**

Objectives :

Are you planning to become a data scientist? If yes, then you have to learn Python programming language. Why? Python is the number one programming language in the world of data scientists. It emphasises on code readability and clear programming on both small and large scales, allowing you to focus on your research, product, or project.

In this 4-day journey, you will be exposed to multiple development environments so you can choose the best one for you. You will be taught step-by-step how to program in Python. You will go through all the steps of a Data Science project starting from data importing, data cleaning, data analysing, to data visualisation which reveals new insights.

In summary, you will gain a complete understanding of Python with Data Science from the ground up.

Target Group :

Prerequisites:

All participants should have a basic knowledge of programming in any language (Java, C, C++, Pascal, Fortran, Javascript, PHP, Python, etc.)

Who Should Attend:

This workshop is intended for individuals who are interested in learning Data Science, or who want to begin their career as a data scientist.

Exam Format:

The Certified Python for Data Science certification exam duration is 2 hours, consisting of 50 Multiple-Choice Questions, with a passing score of 70%. You will receive a professional Certified Python for Data Science certification upon passing the exam.

Benefits :

Learning Outcomes:

Upon completion of this course, you will be able to:

- Recognise the meaning of the terms "Data Science" and "Machine Learning".
- Understand the basics of Python.
- Develop and write code easily in Python.
- Deal easily with files and file systems.
- Deal with different sources of data.
- Analyse and visualise data to gain new insights.

Course Outline :

Day 1:

Introduction to Programming

- What is Algorithm?
- What is Programming?
- The Natural Language of the Computer
- Machine Language
- Programming Language Levels
- Translators

Python Basics

- Identifiers, Lists, and Tuples
- Dictionaries, Sets, Strings, Operators, Control Structures, Loops

Day 2:

Jupyter Notebook

- Installing and Running Jupyter
- User Interface
- Checkpoints

Functions

- Functions
- Lambda and Map Functions
- Globals and Locals

Pythonic Programming

- List Comprehension
- Generator Expressions
- Exceptions Handling

Modules and Packages

- Modules
- Documentation
- Packages and Namespaces

Working with Files

- Create, Read, Update, Delete (CRUD) a File

Day 3:

Object-Oriented Programming

- OOP in General
- Classes
- Objects
- Constructors
- Instance/Class Data
- Instance/Class Method
- Inheritance

OS Module

- Working with File Systems
- Walking Directory Trees
- Paths
- Filenames
- Directories

Working with Files

- Creating a File
- Reading a File
- Updating a File
- Deleting a File

Working with JSON Data

- What is JSON and Why Is It Important?
- Module, Serialisation and Deserialisation

Web Scraping (BeautifulSoup)

- What is Web Scraping?
- HTML Tags
- BeautifulSoup Module
- Webpage Scraping Phase

Day 4:

Introduction to Matrix Processing (NumPy)

- What is NumPy?
- Ndarray Object, Data Types
- Array Attributes, Array Creation Routines
- Indexing and Slicing
- Array Manipulation

- Mathematical Functions

Data Analysis (Pandas)

- What is Pandas?
- Series
- DataFrame
- Data Importing
- Data Pre-Processing
- Data Grouping

Data Visualisation (Matplotlib)

- What is Matplotlib?
- Line Graphs
- Bar Graphs
- Pie Charts
- Histograms
- Scatter Plots
- Graph Attributes
- Text Annotation

Day 5:

Introduction to Applied Machine Learning (Scikit-learn)

- What is Machine Learning?
- Machine Learning Algorithm Types
- Main Steps in Machine Learning Projects
- Introduction to Scikit-learn Module

Capstone Project

Final Evaluation (Exam)

Payment Condition :

Payment can be made by:

1. Cash or Credit Card or Bank Cheque payable to **"สำนักงานพัฒนาวิทยาศาสตร์และเทคโนโลยีแห่งชาติ"** (a post-dated cheque is not accepted) on the first day of the service or within the last day of the service.
2. **Account transfer** and send the proof of the payment (the deposit slip) to email ttd@swpark.or.th

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Notes:

- Withholding tax (3%) is exempt.
- Should you need to withdraw, you must send the notice of the withdrawal in writing no later than 7 working days before the commencement date. The cancellation less than 7 days will be subject to a fine of 40% of the fee.
- Software Park Thailand reserves the rights to cancel courses due to unforeseen circumstances.

Contact Person :

For more information, contact our course coordinator on:

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You are encouraged to use the course schedule as a guide to plan your training.

The schedule is accessible at www.swpark.or.th for more information.