Programming II : Intermediate Python

ECTS : 3

Description du contenu de l'enseignement :

This intermediate-level Python programming course is designed to deepen your understanding of Python and enhance your programming skills for a career in quantitative finance. After introducing the foundational concepts of the Python programming language, this course delves into more advanced topics and techniques. You will learn about object-oriented programming (OOP) principles and advanced data structures, as well as essential computer science concepts to profile and write more efficient code. The course will also enable you to write more elegant code, maintain code written by others, and take advantage of the growing popularity of LLMs to code faster. Through practical hands-on exercises, you will develop the ability to design and implement complex Python applications while also gaining proficiency in utilizing external libraries and modules. By the end of this course, you will be equipped with the skills necessary to tackle more challenging programming tasks and create robust and maintainable Python programs.

Compétence à acquérir :

Knowledge in Python programming for career in quantitative finance

Mode de contrôle des connaissances :

Project 90 % - Participation (10%).

Recommended prior knowledge
Basic concepts of programming, statistics, linear algebra and convex optimization.

Bibliographie, lectures recommandées :

Mandatory literature: Mandatory installation:
Python 3.9 and other pydata libraries from Anaconda: https://www.anaconda.com/distribution/

An IDE like VSCode to run python code https://code.visualstudio.com/

Pre-requisite:
Recommended material if the student has no experience coding: 1 hour Python beginner tutorial - See the vide

- Hilpisch, Yves, Python for Finance: Analyze Big Financial Data, 2015, O'Reilly Publishing
- Lecture Notes and Github code of the class