



# CHARTERED FINANCIAL DATA SCIENTIST (CFDS®)

There is no way around it: big data just keeps getting bigger. The numbers are staggering, and they are not slowing down. There are 40x more bytes of data than there are stars in the observable universe. But how can we effectively use this amount of data for our purposes? Especially the financial sector is thoroughly observing “Big Data” for benefits. This program aims to introduce finance professionals into “Machine Learning” and its potentially endless opportunities which arise when insights scientifically extracted from big data are empowering financial market participants.

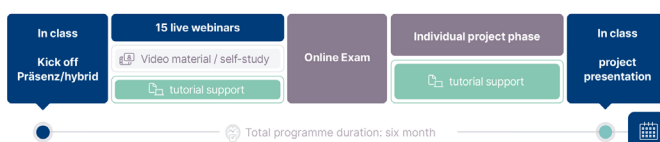
## CONTENT

- ◆ Introduction: Data Science
- ◆ Exploratory Data Analysis
- ◆ Multiple Linear Regression and Related Topics
- ◆ Models with Binary Dependent Variables
- ◆ Time-Varying Volatility and the Likelihood of Extreme Loss Events
- ◆ Smoothed Bootstrap
- ◆ Statistics with Python
- ◆ Introduction to Machine Learning
- ◆ Introduction to Python and ML Libraries
- ◆ Supervised Learning and Logistic Regression in Python
- ◆ Unsupervised Learning and K-Means in Python
- ◆ Neural Networks and Deep Learning
- ◆ Convolutional Neural Networks
- ◆ Recurrent Neural Networks and Long Short Term Memory
- ◆ Natural Language Processing
- ◆ Transformers
- ◆ Reinforcement Learning
- ◆ Data Centric AI
- ◆ AI Canvas

## TIMESTRUCTURE

The CFDS program consists of 2 in-class blocks. One Kick off at the beginning and a presentation at the end. In between you will have 15 live webinars as well as video material for your self-study. (Study time: approx. 145 hours).

This knowledge in financial data science will be subject to a one hour multiple choice exam.



## FLEXIBLE LEARNING: PRESENCE/HYBRID

With live stream on the attendance days

All students passing that exam will then start a seven weeks project work, that means analysing a real or fictive data set using Python. The results of the project work will be presented in a in-class closing session.

## TARGET GROUP

Managers and employees from the following segments

- ◆ Data Analytics
- ◆ Data Management
- ◆ Risk Management
- ◆ Marketing/Sales
- ◆ Trading
- ◆ Compliance/Regulation
- ◆ IT
- ◆ interface product management/ project management and IT

The program will be conducted in cooperation with AZEK. AZEK is a leading provider of financial education in Switzerland. The in class can take place in Zurich or Frankfurt.

# .AZEK

**Study Location**  
PRESENCE/HYBRID,  
FRANKFURT

**Duration**  
2 in-class blocks one  
at the beginning one  
and the end  
6 MONTHS

## TERMINE & PREISE

finden Sie auf unserer  
Homepage unter: 09  
[akademie.dvfa.de/cfds](http://akademie.dvfa.de/cfds)



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## FOR QUESTIONS AND FURTHER INFORMATION



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