Certificate Program in Python for Algorithmic Trading

Example Study Plan

Remarks:

- the table is just an **example** of how the different topics can be combined into a 12-week study program
- week 1 refers to the **starting week of the program**, i.e. to **calendar week 19 from Monday, 07. May 2018**
- it assumes an effort of about **10-15 hours per week** for live sessions, watching videos, reading documentation and self-study; some invest a bit more
- the column **Certificate Program** contains the main elements/videos of the program, found under the same name on the Quant Platform and maybe other trainings (such as Finance with Python Videos)
- the column **Python for Financial Data Science** refers to the materials for respective class
- the column **Tools & Skills** refers to topics related to basic tools and skills needed in software and Python development for finance and algorithmic trading; these topics are important for setting up a proper development environment and efficient development processes
- the column **Reading Material** refers to the written materials & codes found in the ***Finance with Python*** and ***Python for Algorithmic Trading Courses*** as well as in the early draft version of ***Python for Finance, 2nd ed.***
- under **Live Sessions** you find the planned live sessions for the respective week; they will be announced by email invitations (in general in the week before they take place); they cover **selected important topics** or present **new/updated material** not yet available on the Quant Platform
- the column **Optional Resources** lists videos, e.g. from the classes **Online Summer Bootcamp** or **Python & Linux Infrastructure**, that can be watched to review or to go deeper into certain topics; they might also present topics from a different angle or with different twists
- on the Quant Platform you also find a training class called **Webinars, Talks & Special Topics** – here you find a collection of recordings from recent talks, webinars and workshops that are related to Python for Finance & Algorithmic Trading
- if you have **technical or content questions**, please use the **User Forum** on the Quant Platform
- if you have **organizational questions**, you can send us an email to training@tpq.io

WEEK	Certificate Program	Python for Financial Data Science	Tools & Skills	Reading Material	Live Sessions	Optional Resources
01	Finance with Python 1 Finance with Python 2	Data Types & Structures 01	Python Installation Python Environments IPython	Finance with Python Chs 1-3 Python for Algo Trading Ch 1 Python for Finance Chs 1-2	Intro & Overview – 07. May 2018 Tools & Skills 01 (Mac) – 09. May 2018 Tools & Skills 01 (Win) – 11. May 2018	OSCB Session 1
02	Finance with Python 3 Finance with Python 4	Data Types & Structures 02	Docker Usage Jupyter Notebook	Finance with Python Chs 4-6 Python for Algo Trading Ch 2 Python for Finance Ch 3	Tools & Skills 02 (Win) – 14. May 2018 Tools & Skills 02 (Mac) – 17. May 2018	Python & Linux Infrastructure Environments & Docker Containers
03	Financial Data Science 1 OOP – Introduction	Numerical Computing with NumPy	Cloud Usage Mac/Lin Hosted Jupyter Notebook	Python for Algo Trading Ch 3 Python for Algo Trading App Python for Finance Ch 4	Tools & Skills 03 (Mac) – 24. May 2018	Windows & SSH
04	Financial Data Science 2 OOP – Applications	Data Analysis with pandas	Cloud Usage Win Jupyter Notebook	Python for Algo Trading Ch 3 Python for Finance Ch 5	Tools & Skills 03 (Win) – 29. May 2018	–
05	Vectorized Backtesting OOP – Backtesting	Object Oriented Programming	Vim Code Editor	Python for Algo Trading Ch 4 Python for Finance Ch 6	Tools & Skills 04 – 07. June 2018 Python for Databases 01 – 08. June 2018	OSBC Session 1
06	Event-based Backtesting 1 Event-based Backtesting 2	Visualization & Financial Time Series	Screen + Vim + q (editing, logging, debugging)	Python for Algo Trading Ch 6 Python for Finance Chs 7-8	Tools & Skills 05 – 11. June 2018 Python for Databases 02 – 12. June 2018	Python Tool Chain
07	**Regression-based Prediction** **Classification-based Prediction**	**Input-Output Operations**	**Doctest & Unittest**	**Python for Algo Trading Ch 5** **Python for Finance Ch 9**	**Tools & Skills 06 – 19. June 2018** **Python for Databases 03 – 21. June 2018**	**OSBC Session 2**
08	Deep Learning-based Prediction	Performance Python	Git Version Control	Python for Algo Trading Ch 5 Python for Finance Chs 10	tba	OSBC Session 2 Best Practices 1
09	Real-Time Data Handling Streaming Visualization	Math Tools & Stochastics	Python Packaging	Python for Algo Trading Ch Python for Finance Chs 11-12	tba	OSCB Session 3
10	Eikon & Oanda FXCM	Statistics and Dates & Times	Documentation	Python for Algo Trading Ch 8 Python for Finance Ch 13/App	tba	OSBC Session 4 Best Practices 2
11	Interactive Brokers Gemini	-	Code Hosting	Python for Algo Trading Chs 9-10	tba	OSBC Session 5

WEEK	Certificate Program	Python for Financial Data Science	Tools & Skills	Reading Material	Live Sessions	Optional Resources
12	Automation	-	Case Study	Python for Algo Trading Ch 11	tba	OSBC Session 6
13	Backtesting & 1 Day Live Trading Practice Module					
14	1 Week Live Trading Practice Module					
15-16	Final Project Preparation					