For Python Quants Conference

28th November 2014

Fitch Ratings auditorium, 30 North Colonnade, Canary Wharf, London E14 5GN

Python in quantitative finance in the heart of London

The CQF Institute and The Python Quants are proud to be hosting the For Python Quants Conference in Canary Wharf, London's modern financial center. This one-day conference focuses on the intersection of the Python programming language and analytical and quantitative finance.

In the past few years, the Python programming language has come to dominate the world of scientific computing. Tools like Pandas, originally developed at AQR Capital Management and built upon a mature numeric and scientific computing ecosystem (NumPy & SciPy) show us that Python is extremely well-suited to analytical workflows, and tools like Numba and Blaze show us how well these workflows can scale.

Keep up with the latest developments in Python for finance, see the experts in action, meet people active in your field, experience practical case studies.

If you're a quant, if you use Python or if you're just interested in seeing what the future holds, then this event is for you.

Pre-conference one-day workshops

26th & 27th November 2014

Fitch Learning, 4 Chiswell Street, EC1Y 4UP

26th November - **Pandas Training**
Led by: Dr. Yves J. Hilpisch, Managing Partner of The Python Quants

Pandas is a powerful Python library to obtain, manage, analyze and store financial data. This training shows you the basics and advanced approaches of working interactively with Pandas to make data and financial analytics a highly productive and beneficial task.

27th November - **NumPy Training**
Led by: James Powell, Managing Partner of The Python Quants

Topics covered include ndarray, dtypes, array creation, filtering, indexing, reshaping, raveling/flattening, padding, sorting, counting, ufuncs, datetime calculations, interacting with CSV/HDF5, plotting, performance, profiling, numba, cython and numexpr.

www.forpythonquants.com

Pre-conference workshops - 26th & 27th November 2014

26th November
Pandas Training

Led by: Dr. Yves J. Hilpisch, Managing Partner of The Python Quants

Registration: 8:30am
Workshop: 9:00am – 5:00pm (one-hour lunch break)
Location: Fitch Learning, 4 Chiswell Street, EC1Y 4UP

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Part I

Technical Requirements
- Python and libraries needed
- Python quant platform

Pandas Basics
- DataFrame class
- 1st & 2nd steps
- Basic analytics
- Series class
- Vectorization

Data Selection
- Indexes
- Columns

Basic Plotting
- Plotting types
- Basic plots

Financial Time Series
- DatetimeIndex objects
- Financial time series data

Case Studies
- Volatility clustering & leverage effect
- Monte Carlo simulation approaches

Part II

Grouping Operations
- GroupBy objects
- Operations on grouped data

Joining, Appending, Merging
- Join, append, merge operations
- Different options (inner, outer, etc.)

High Frequency Data
- Retrieving and storing HF data
- Resampling HF data
- Operations on such data

Case Study
- HF data collection
- HF data analysis

Statistical Analyses
- Linear regression

Case Studies
- Correlation between ES50 & VSTOXX indices
- Constant proportion investment

Part III

Advanced Analytics Topics
- Performance issues
- Custom functions
- Complex data selection

More on Visualization
- Sub-plots for multiple data sub-sets
- Plotting options and parameters

Input/Output with pandas
- SQL database
- From SQL to pandas
- Data as CSV file
- Data as Excel file
- Using compression

Case Study
- Retrieve stock price data
- Store it on disk using HDF5

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Introductions

- History of NumPy
- A look into Python
- Ndarray basics and basic operations
  - Creating a NumPy.ndarray
  - Slicing, reshaping, flattening, stacking, indexing
  - Basic operations: broadcasting, ufuncs and more

Intermediate NumPy and Plotting (plus exercises):

- Loading data
- Plotting
  - Simple plots with matplotlib
  - Plot & plot_date and options
  - Formatting dates
  - Twin axes
  - Labels, titles, x/y-limits
- Exercise: calculating returns
- Exercise: calculating SMA
- Exercise: calculating VWAP
- Exercise: polynomial detrending
- Exercise: calculating EMA

Recap, Miscellany and Performance

- IPython notebook
- Loading data from URLs
- Loading data from JSON
- Loading data from CSV
- Loading data from HDF5
- Performance
  - Measuring
  - Profiling
- Cython
- Numba
- Numexpr
- Exercise: profiling and optimising rolling VWAP

For Quant Python Conference and Workshops - Package Bookings

Please complete the relevant fields and payment options

PRICE TABLE	Time	Professional early bird (by 8th November)*	Professional	Academic early bird (by 8th November)*	Academic
Workshops	Live (per day)	£295 +VAT	£395 +VAT	£149+VAT	£195 +VAT
	Online (per day)	£75 +VAT	£95 +VAT	£45+VAT	£60 +VAT
Conference	Live	£295 +VAT	£395 +VAT	£149+VAT	£195 +VAT
	Online	£75 +VAT	£95 +VAT	£45+VAT	£60 +VAT

*Applies to all bookings received by the date stated

ACADEMIC PRICE – For those studying, teaching and doing research at universities. Proof of eligibility required.

PACKAGE BOOKINGS – Receive a 15% discount when booking either of the following packages: both workshops, conference & one workshop, conference & both workshops

GROUP BOOKINGS – For group bookings, email us at **events@cqfinstitute.org** and receive a 10% discount when registering 3+ delegates.

Register the following delegate(s)

DELEGATE 1

Miss Ms Mrs Mr Dr Other: **Name:**

Position:

Organization: **Phone:**

Email:

Workshop 26th Nov	Workshop 27th Nov	Conference 28th Nov
Live	Live	Live
Online	Online	Online

DELEGATE 2

Miss Ms Mrs Mr Dr Other: **Name:**

Position:

Organization: **Phone:**

Email:

Workshop 26th Nov	Workshop 27th Nov	Conference 28th Nov
Live	Live	Live
Online	Online	Online

DELEGATE 3

Miss Ms Mrs Mr Dr Other: **Name:**

Position:

Organization: **Phone:**

Email:

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Payment options

Cardholder name:

Charge my Mastercard, Visa, Maestro, Delta, Solo, JCB card (please indicate):

Expiry date (Maestro only) Issue No.

Card security code (Last three digits on the back of your card). A 2% charge is applicable for each credit card transaction. Not applicable for debit card transactions

Signature:

Please print off the completed and signed form and send it to events@cqfinstitute.org

If you have any queries, please call us on +44 (0)20 7496 8260.