Open Source in Quant Finance

A brief and biased overview

Yves Hilpisch

For Python Quants Conference, New York, 01. May 2015

Feel free to take pictures and to tweet.

@dyjh @dataparkio

#Python #QuantFinance #Finance #osqf
#PythonQuantsConf

Mega Trends

Some mega trends that influence quant finance

Today's standard is "open source", even for key technologies.

More and more data sets are "open and free".

Complex analytics work flows are coded in the browser.

Dynamic communities evolve to professional networks.

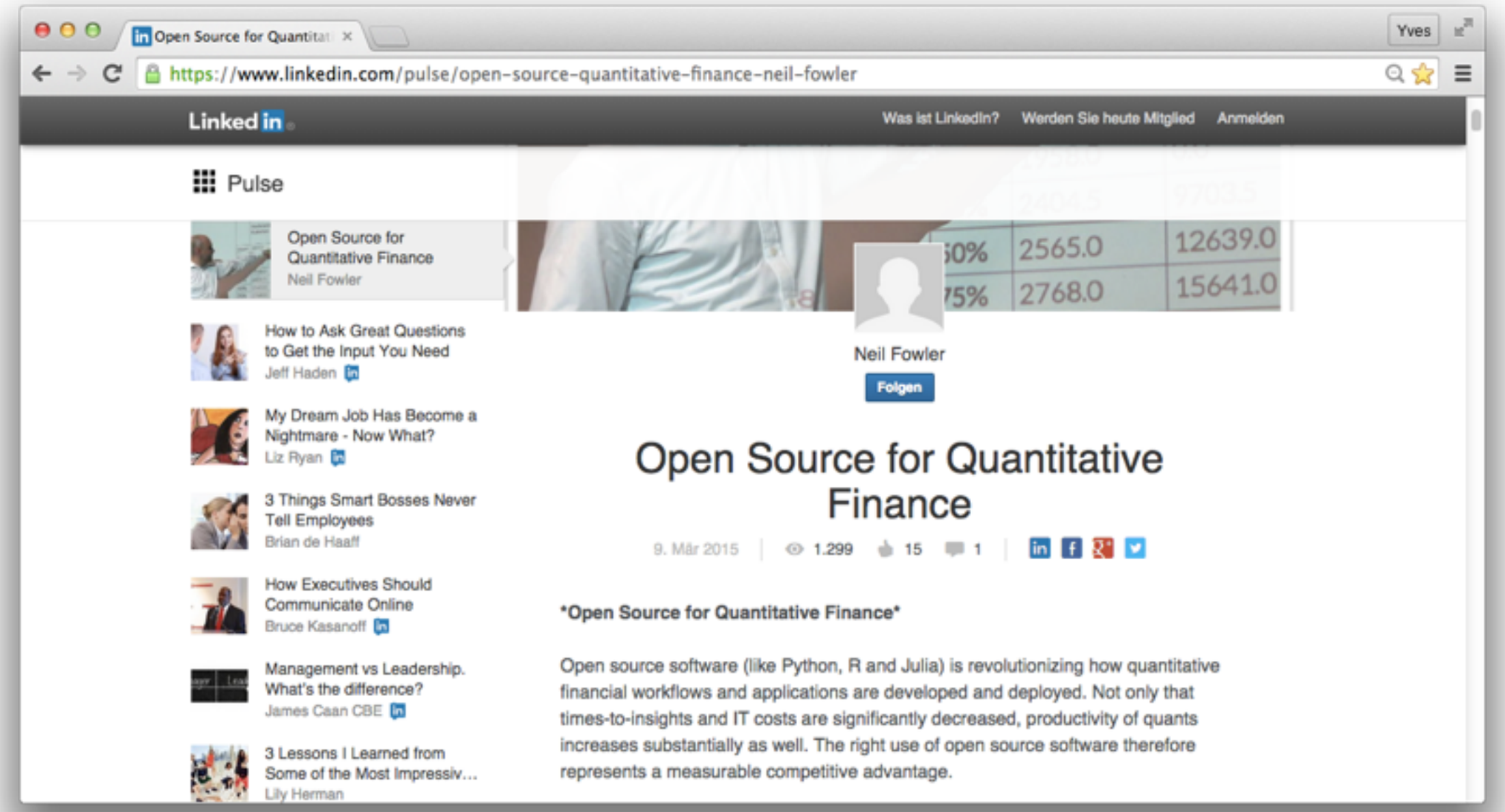
Infrastructure is a standardized commodity, billed by the hour.

Even individuals can trade real-time and with high leverage.

I. The social aspects

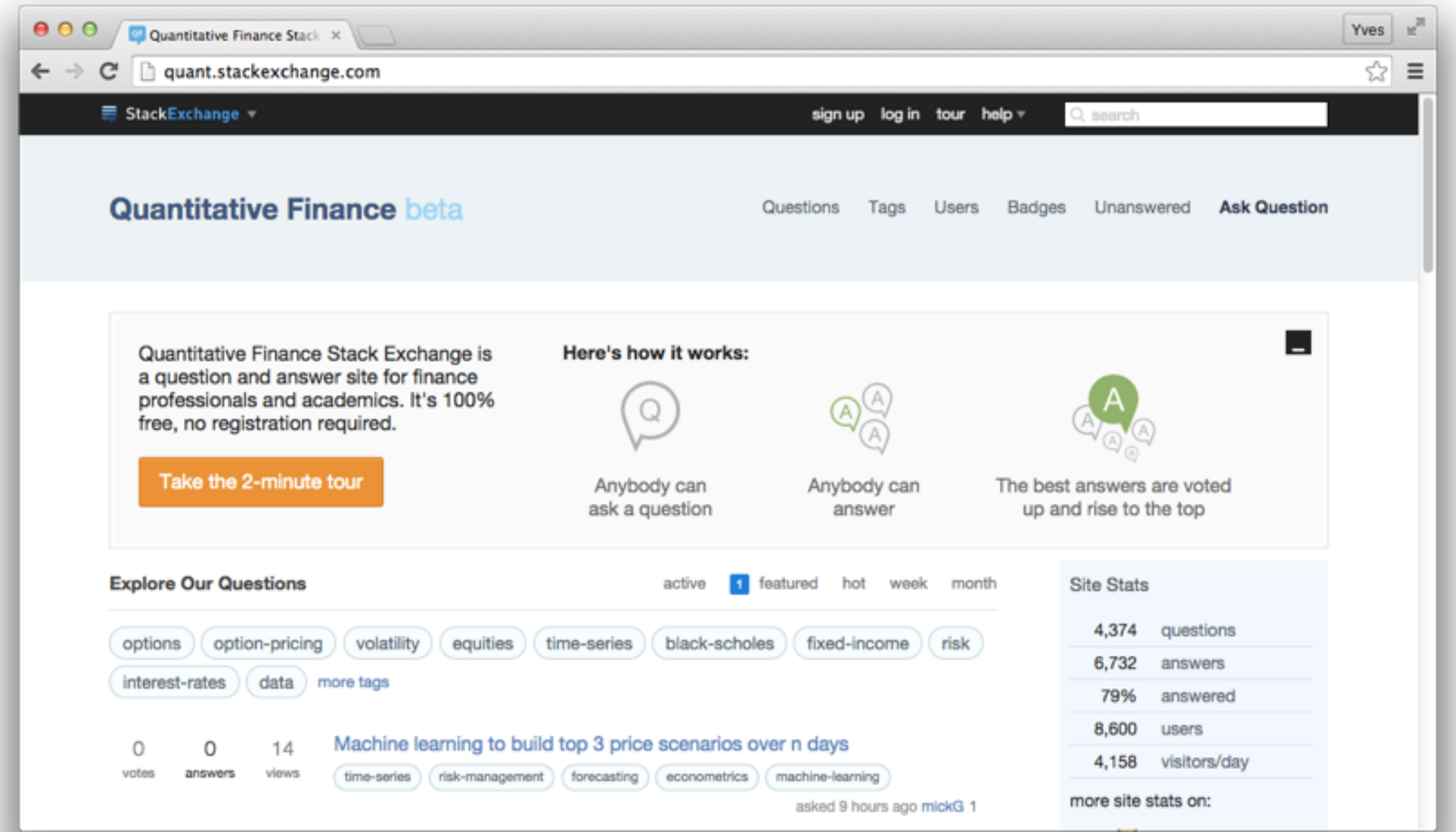
Social Media

Relatively high interest in the topic



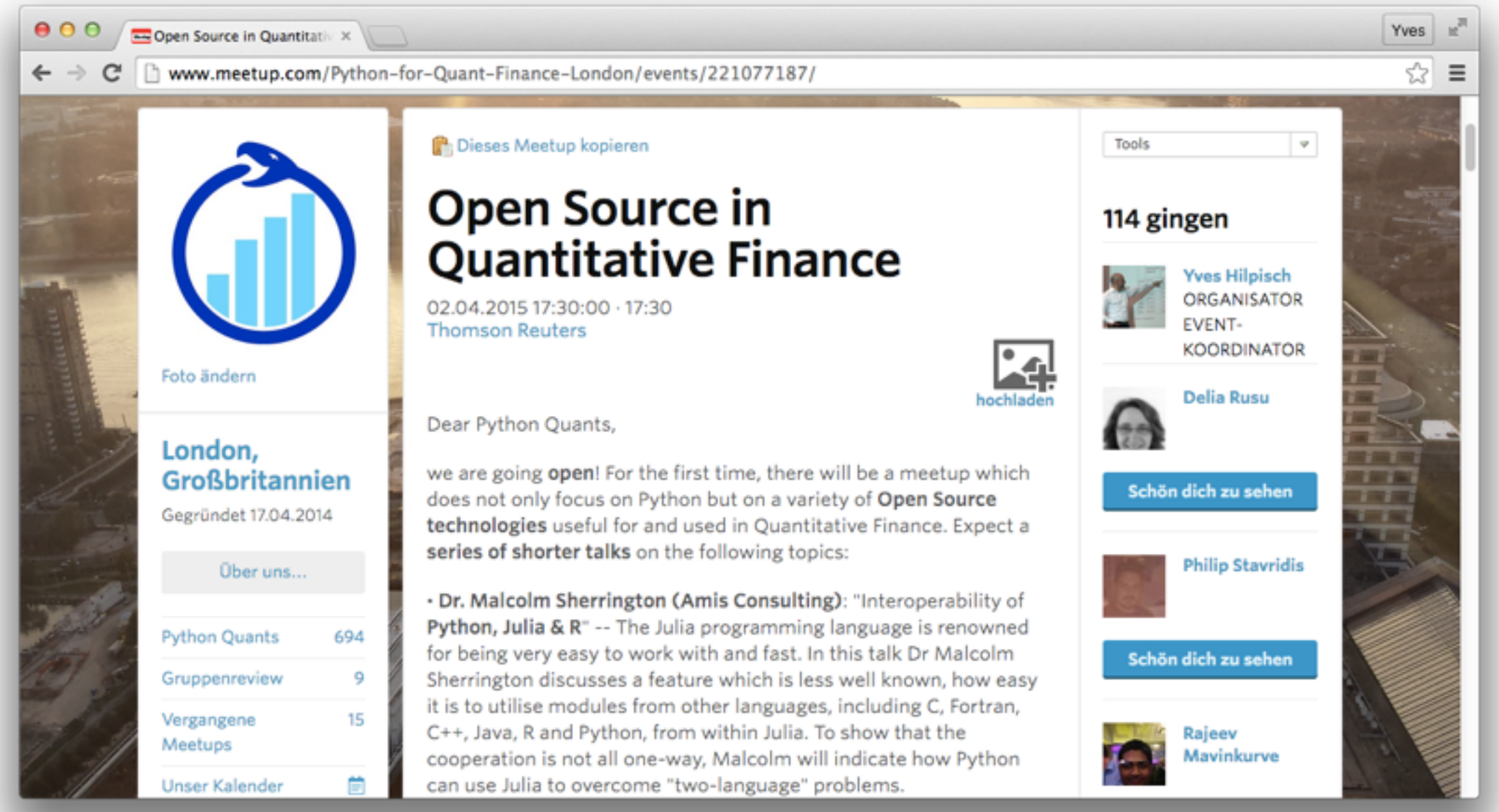
Online Communities

Gaining in popularity



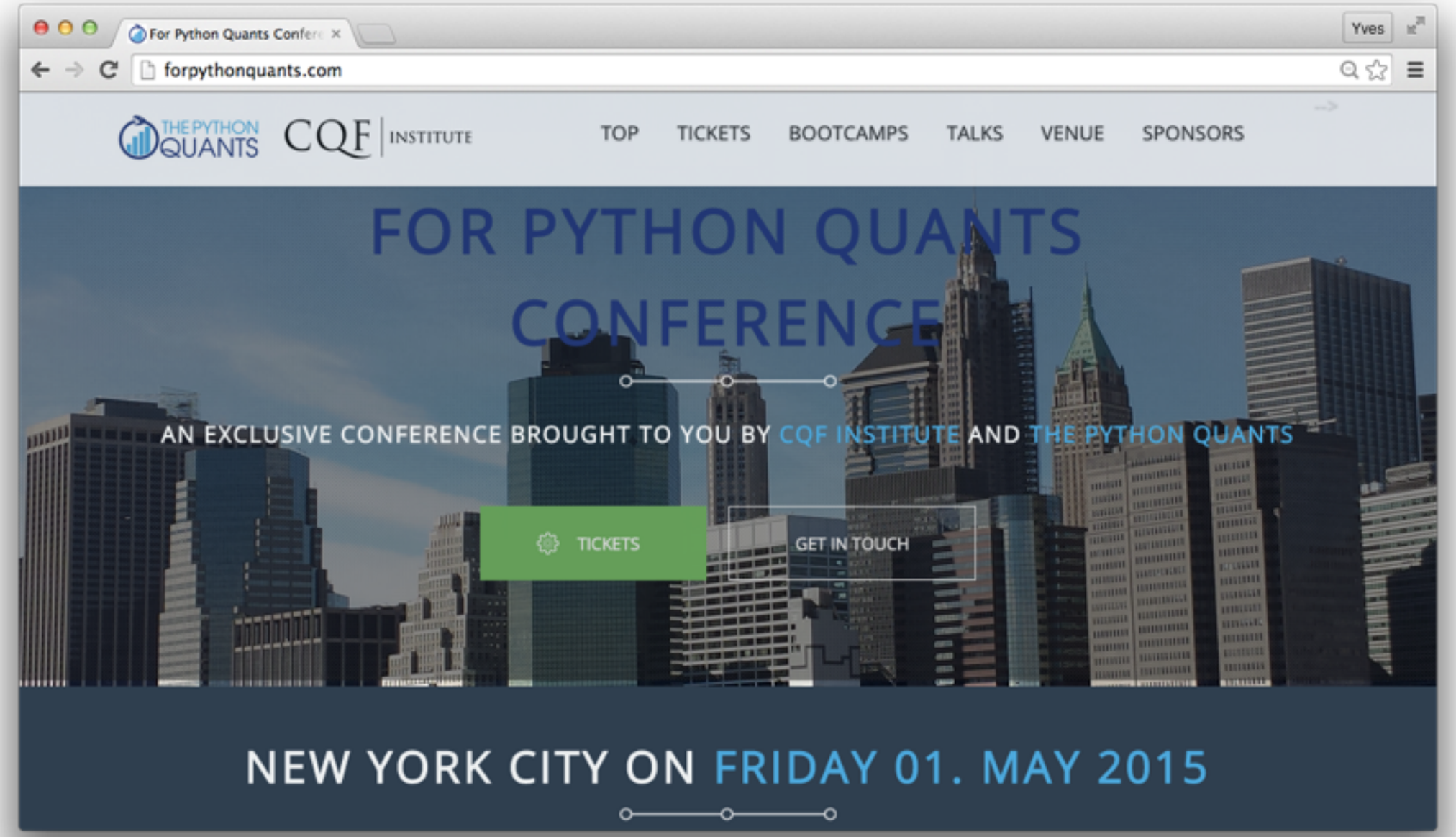
Meetup Groups

Popular topic for Meetup groups



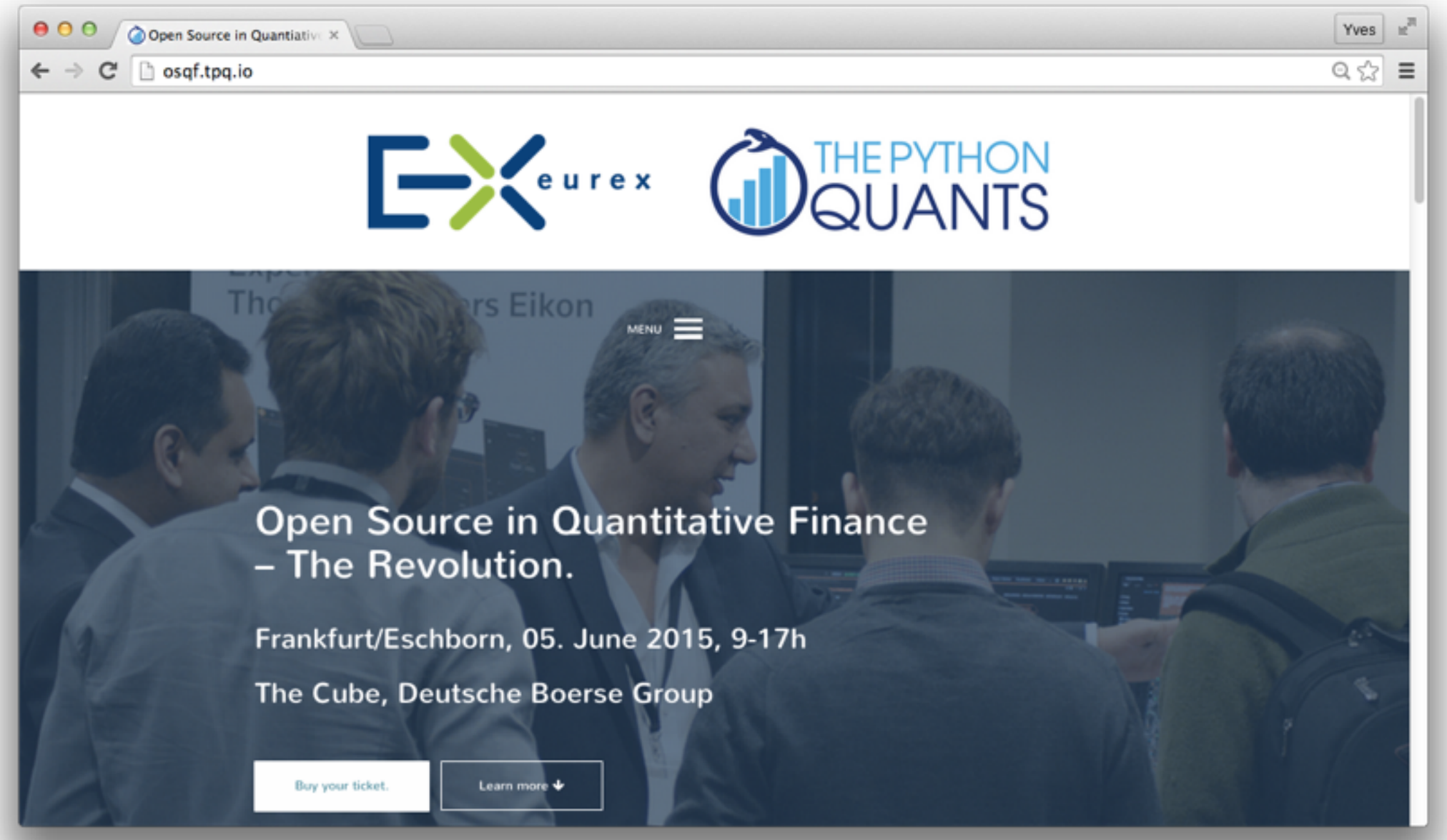
For Python Quants Conference

Third time today – and expanding



Open Source for Quant Finance Conference

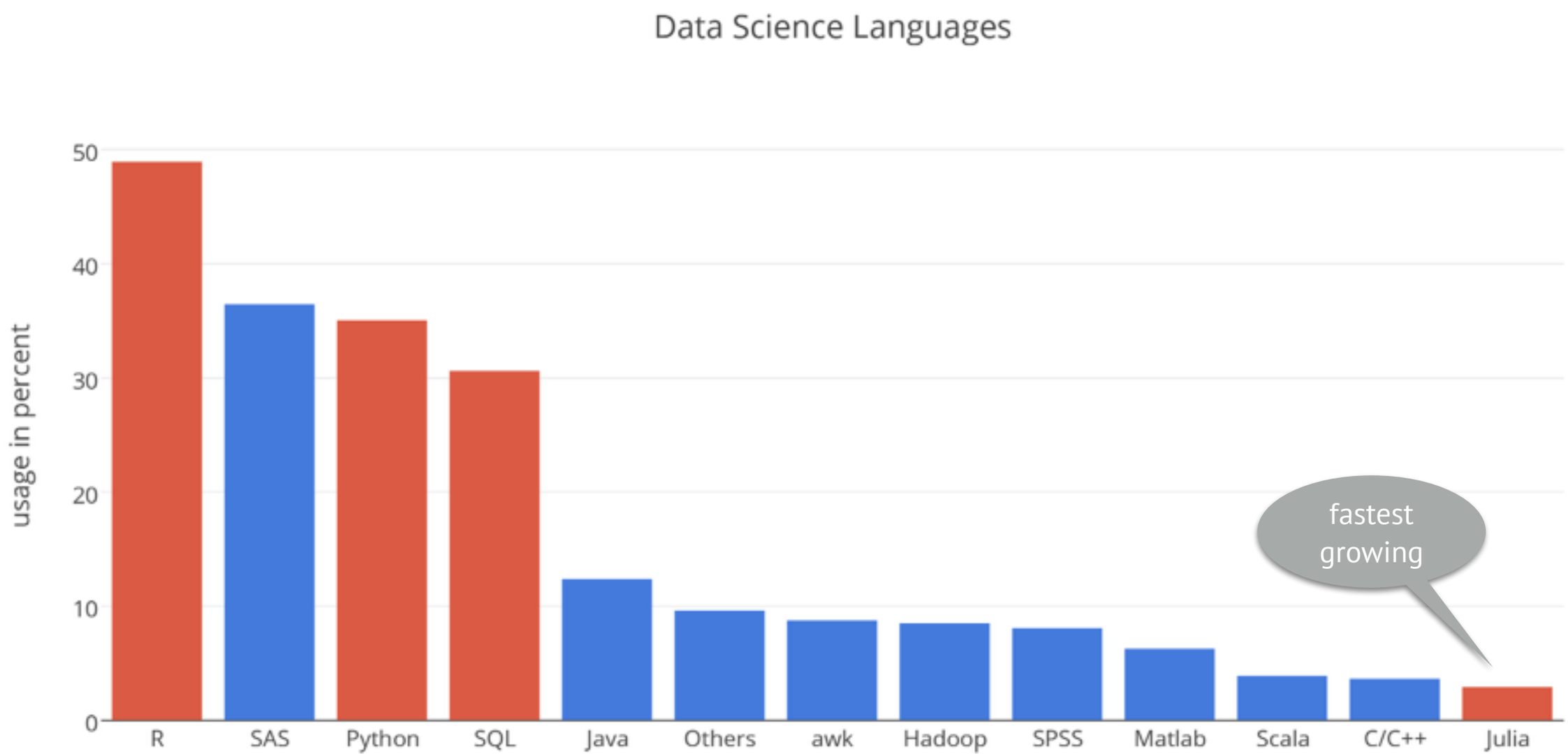
First of its kind in Frankfurt, Germany



II. Some technological aspects

Open Source Data Science

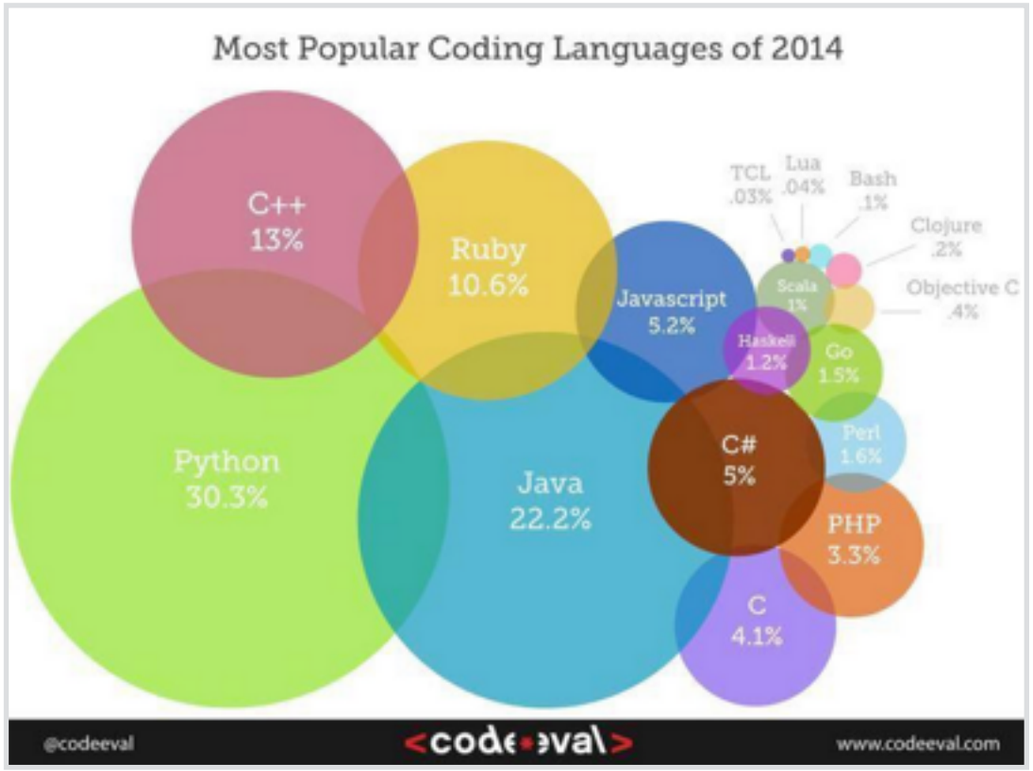
OS languages dominate data science these days

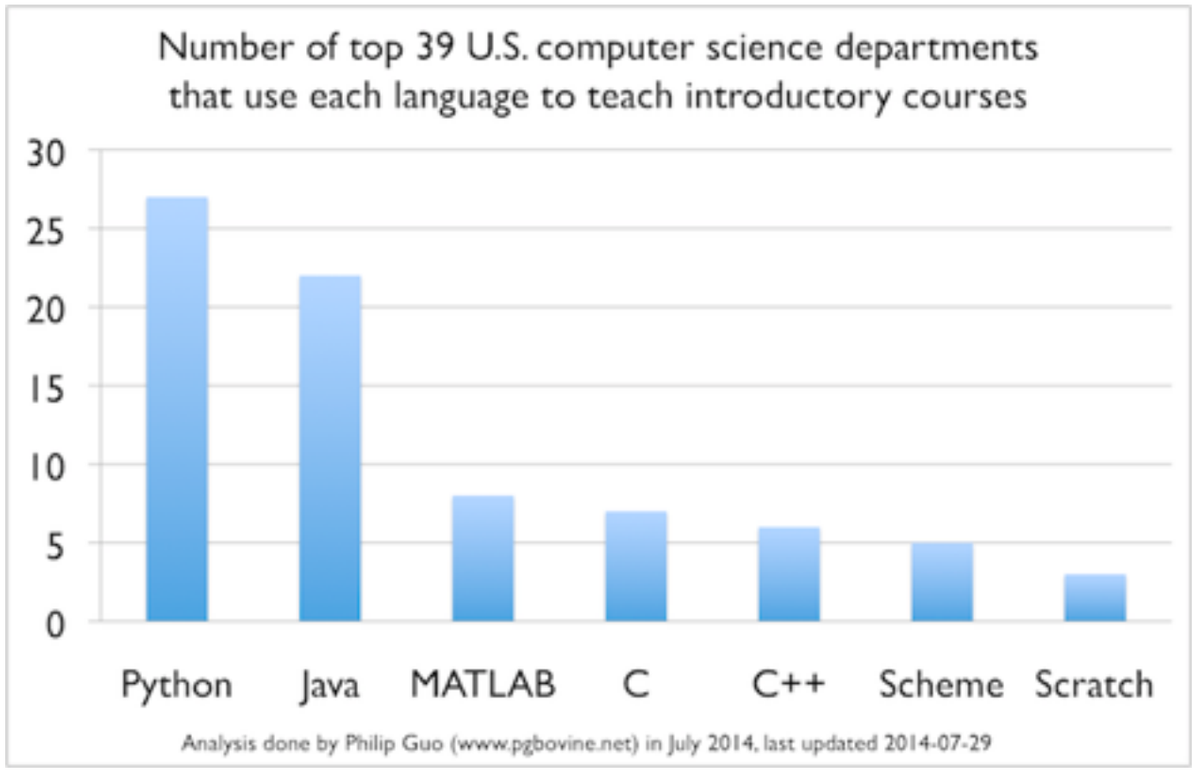


Poll data from August 2014. Source: http://www.kdnuggets.com

Python as Strategic Platform

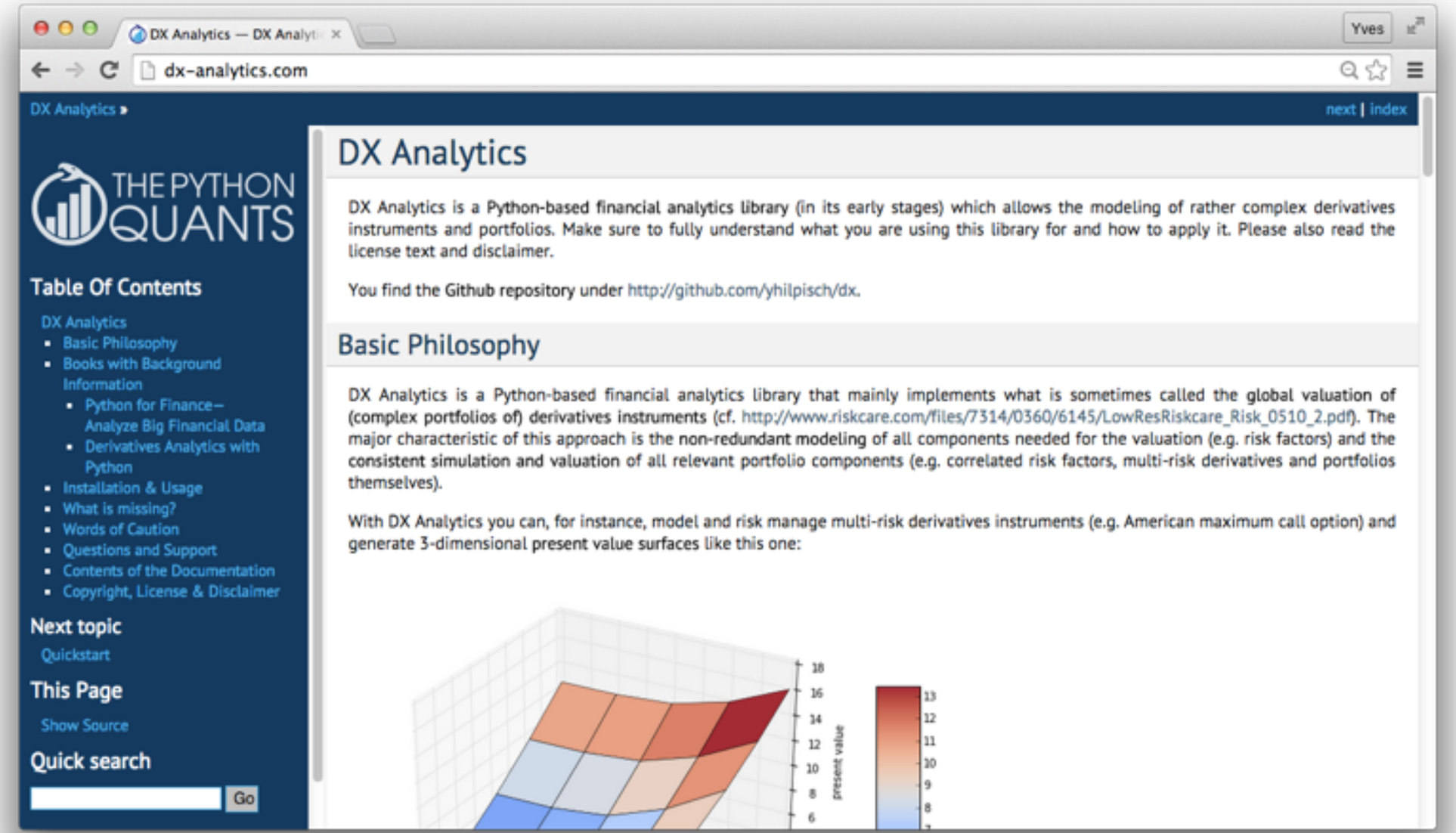
Python plays an important role in the open source ecosystem





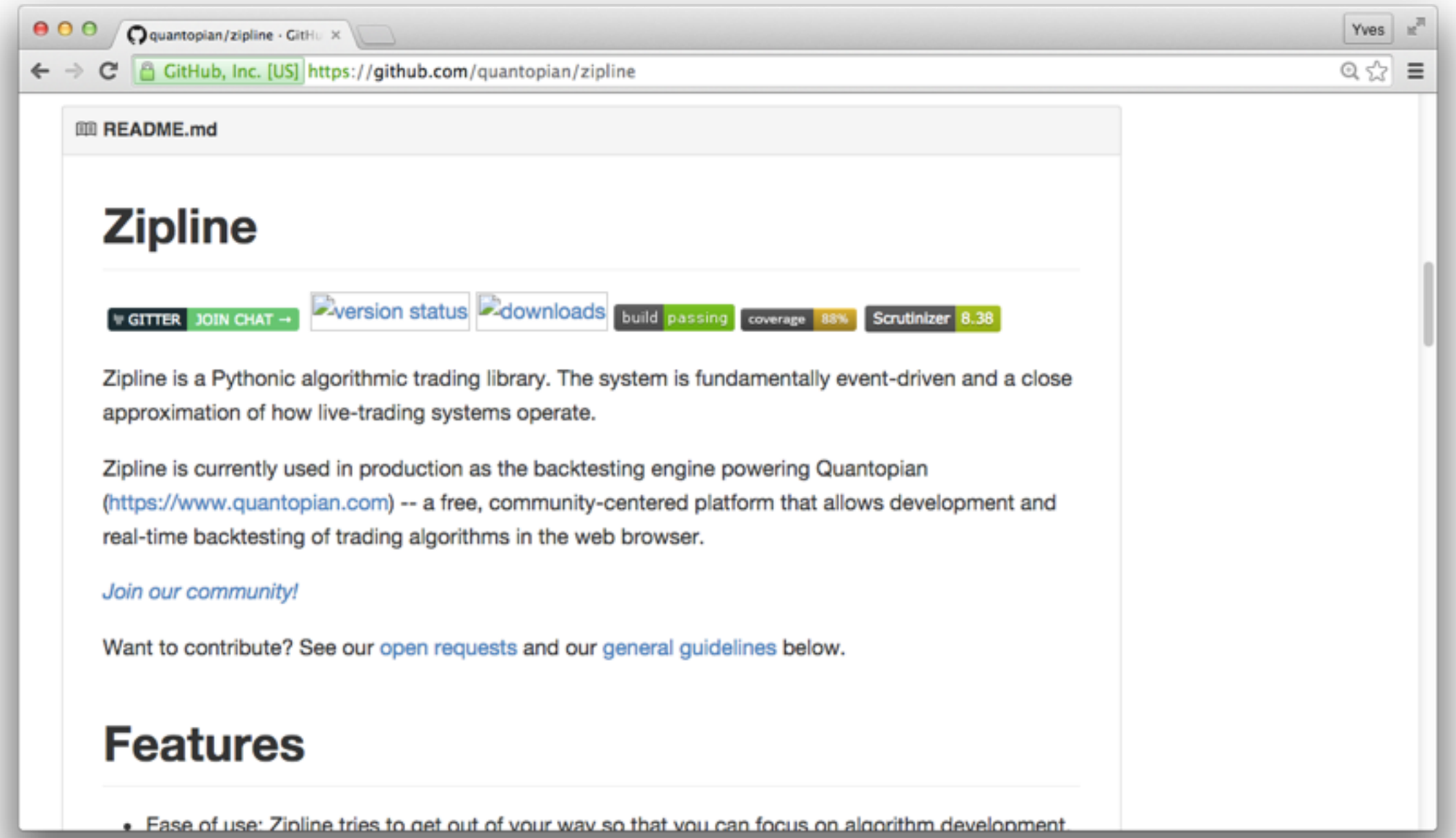
Financial Libraries in Python

Still not too many available as open source ...



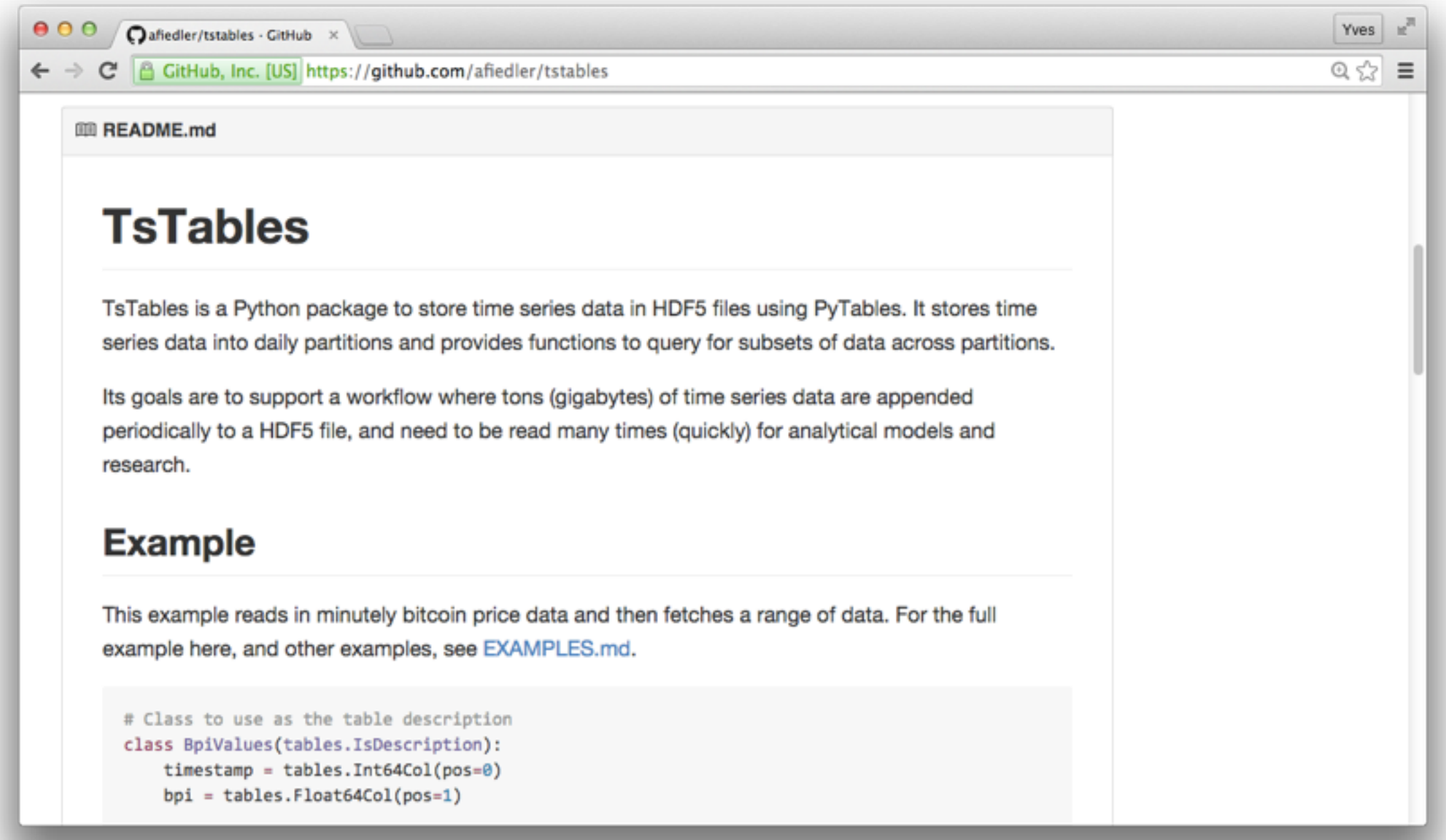
Financial Libraries in Python

... with notable exceptions of course



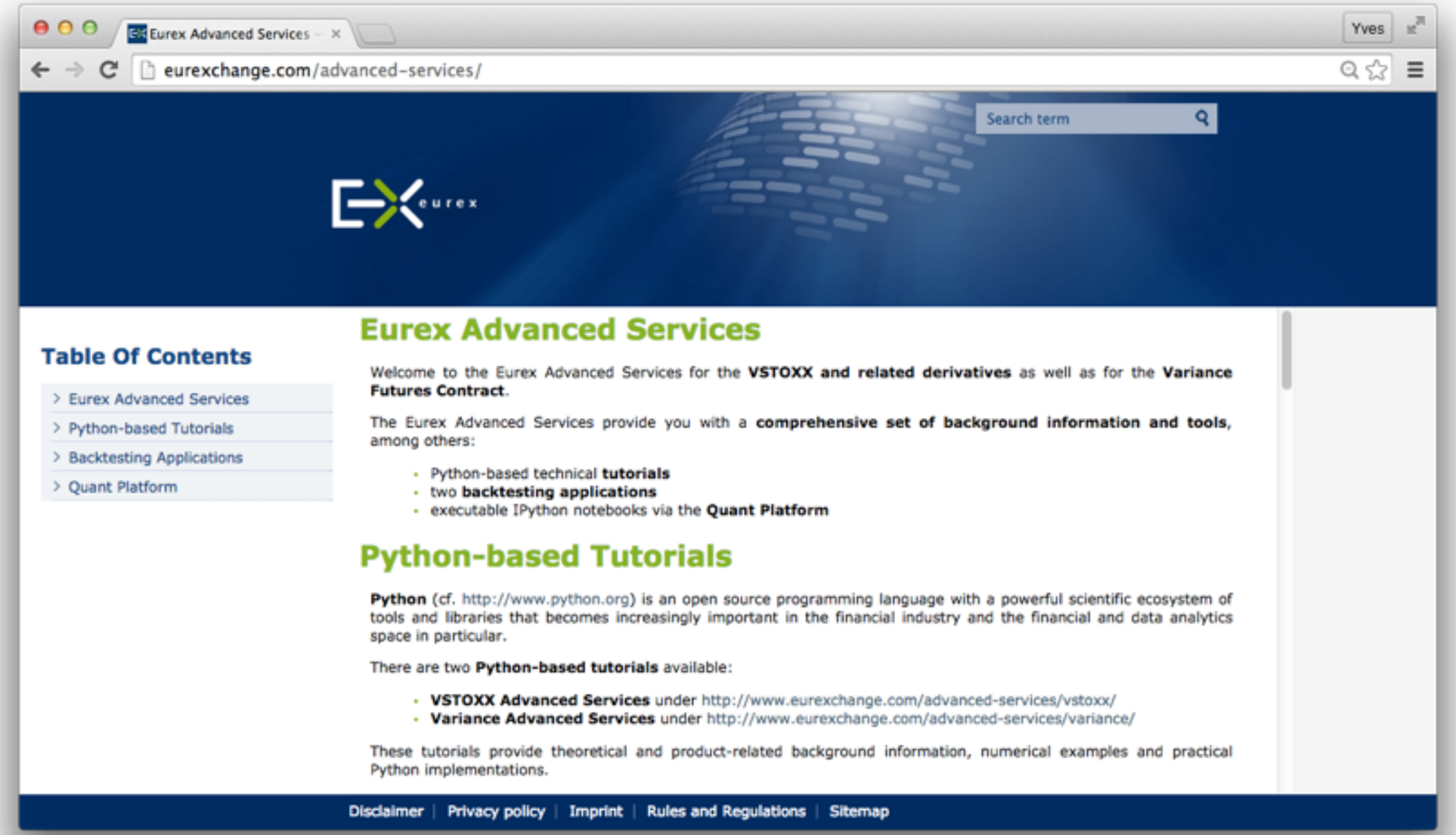
Financial Libraries in Python

There are also some specialized, but really helpful, ones



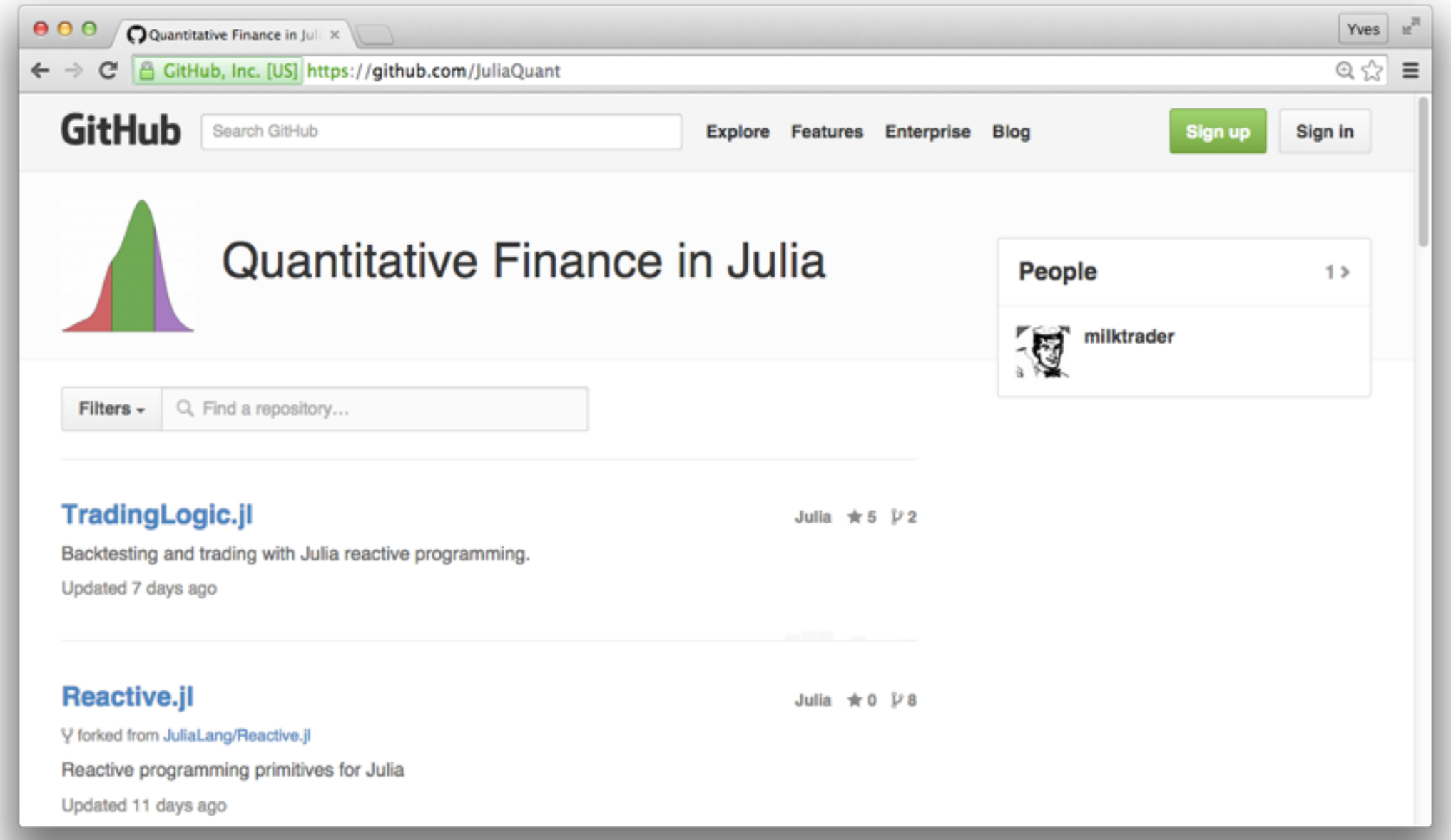
Python for Strategic Marketing

Using Python to communicate quantitative concepts



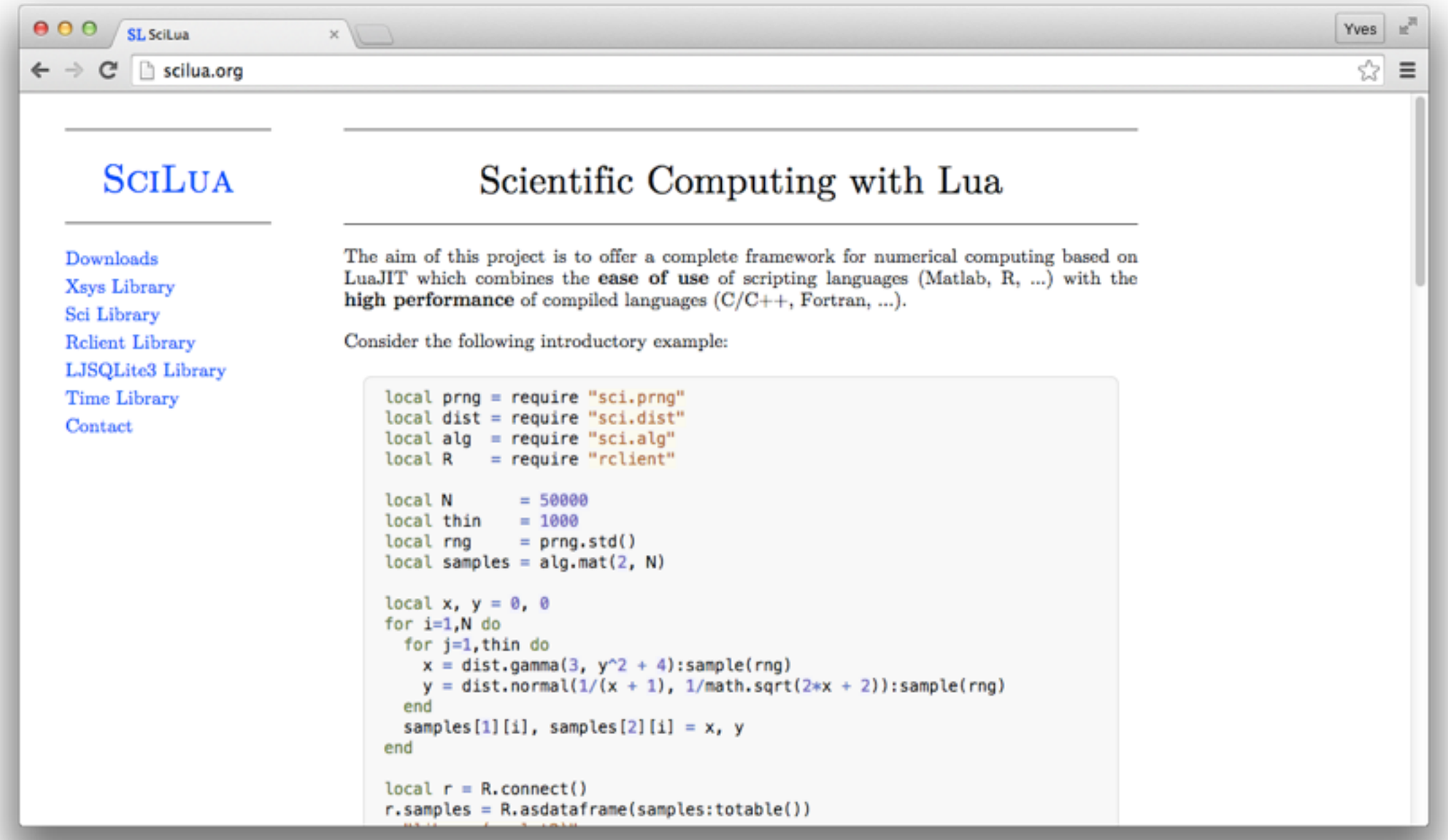
Financial Libraries in Other Languages

Quant Finance in Julia



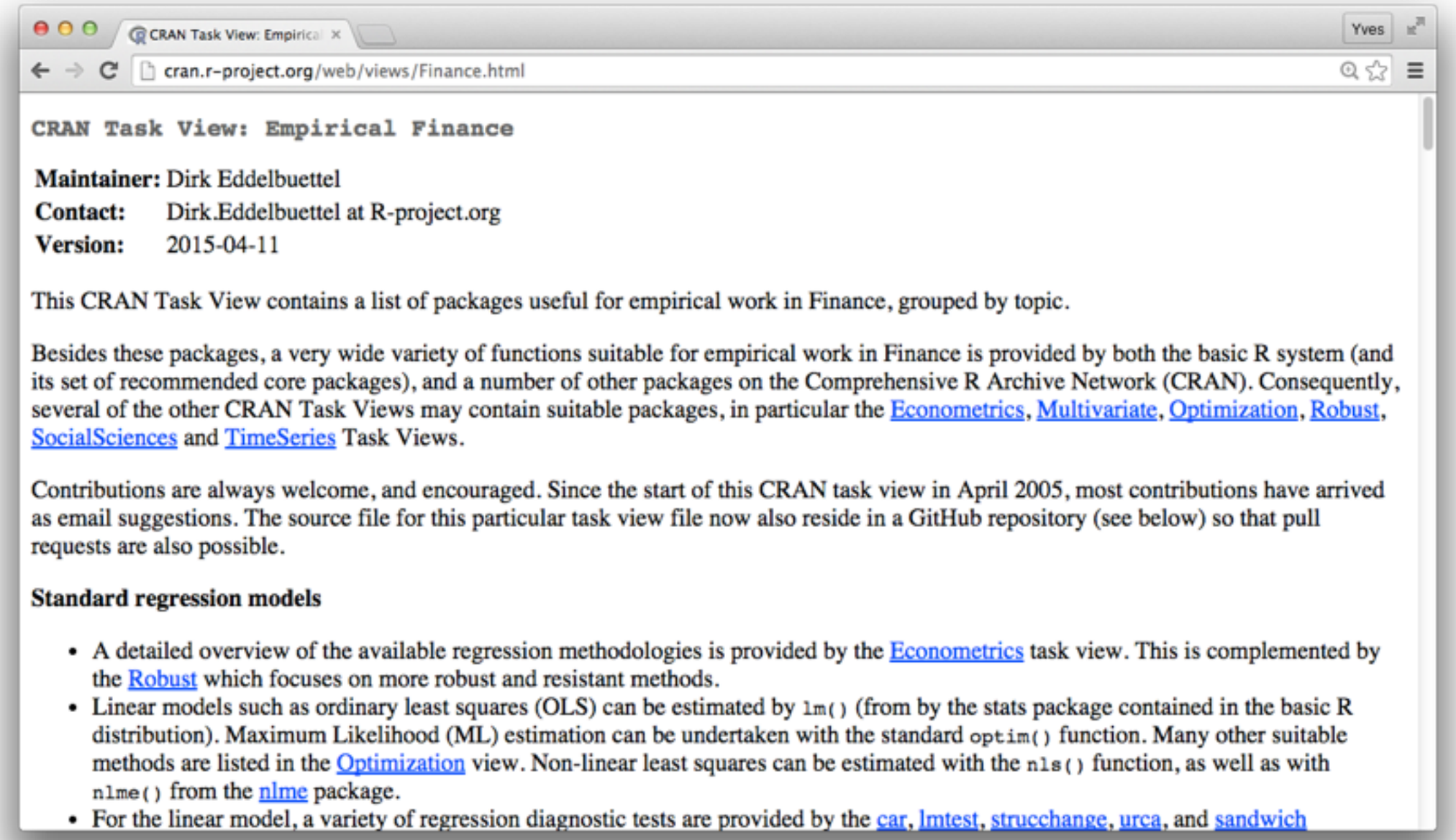
Financial Libraries in Other Languages

Scientific & financial computing in Lua



Financial Libraries in Other Languages

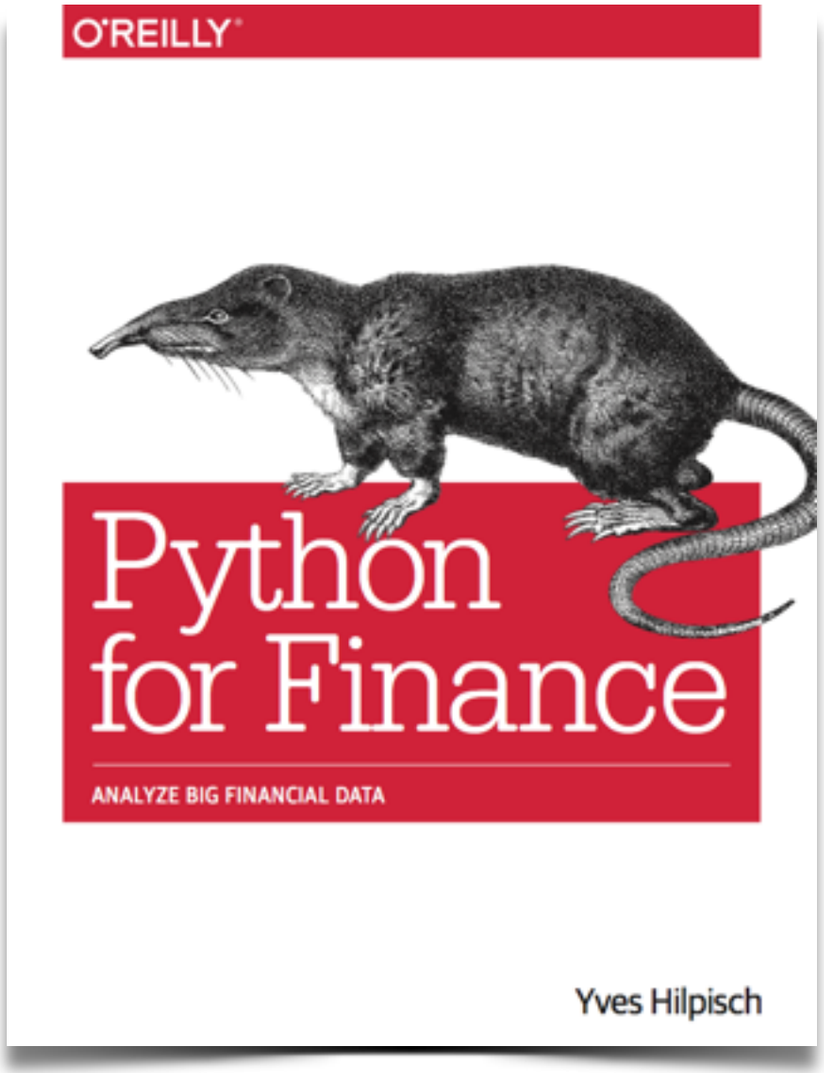
R has probably to offer the most

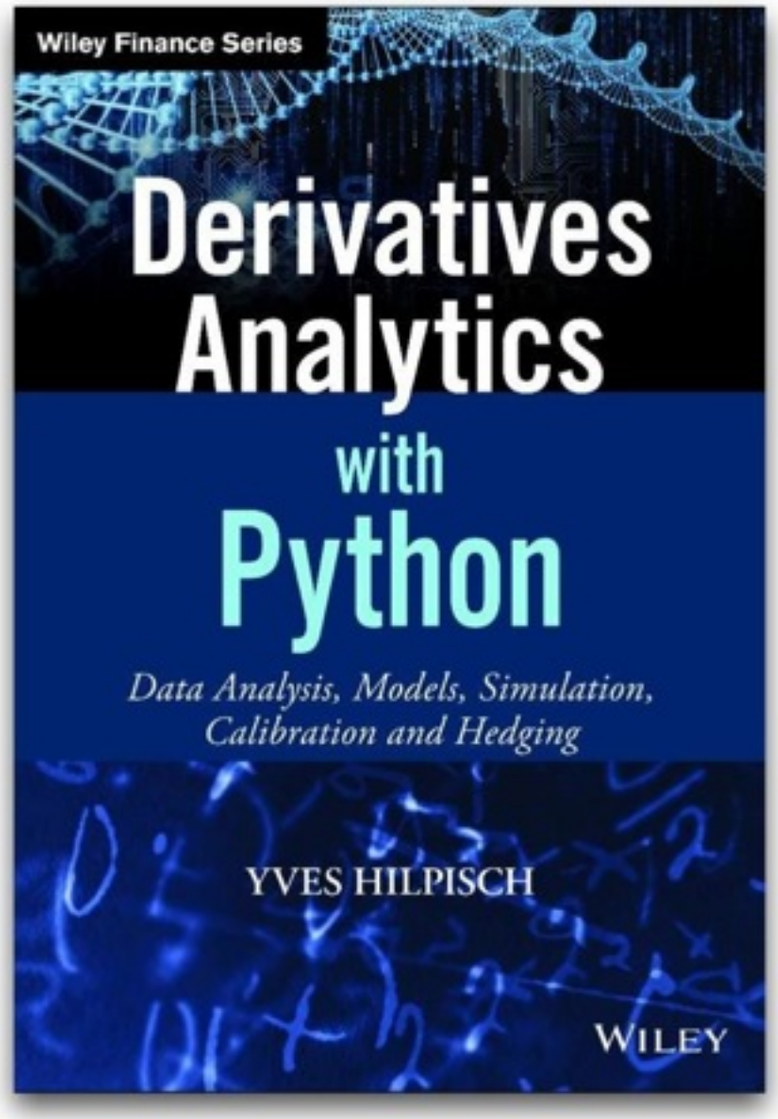


III. Educational Aspects

Books

To make it easier to getting started



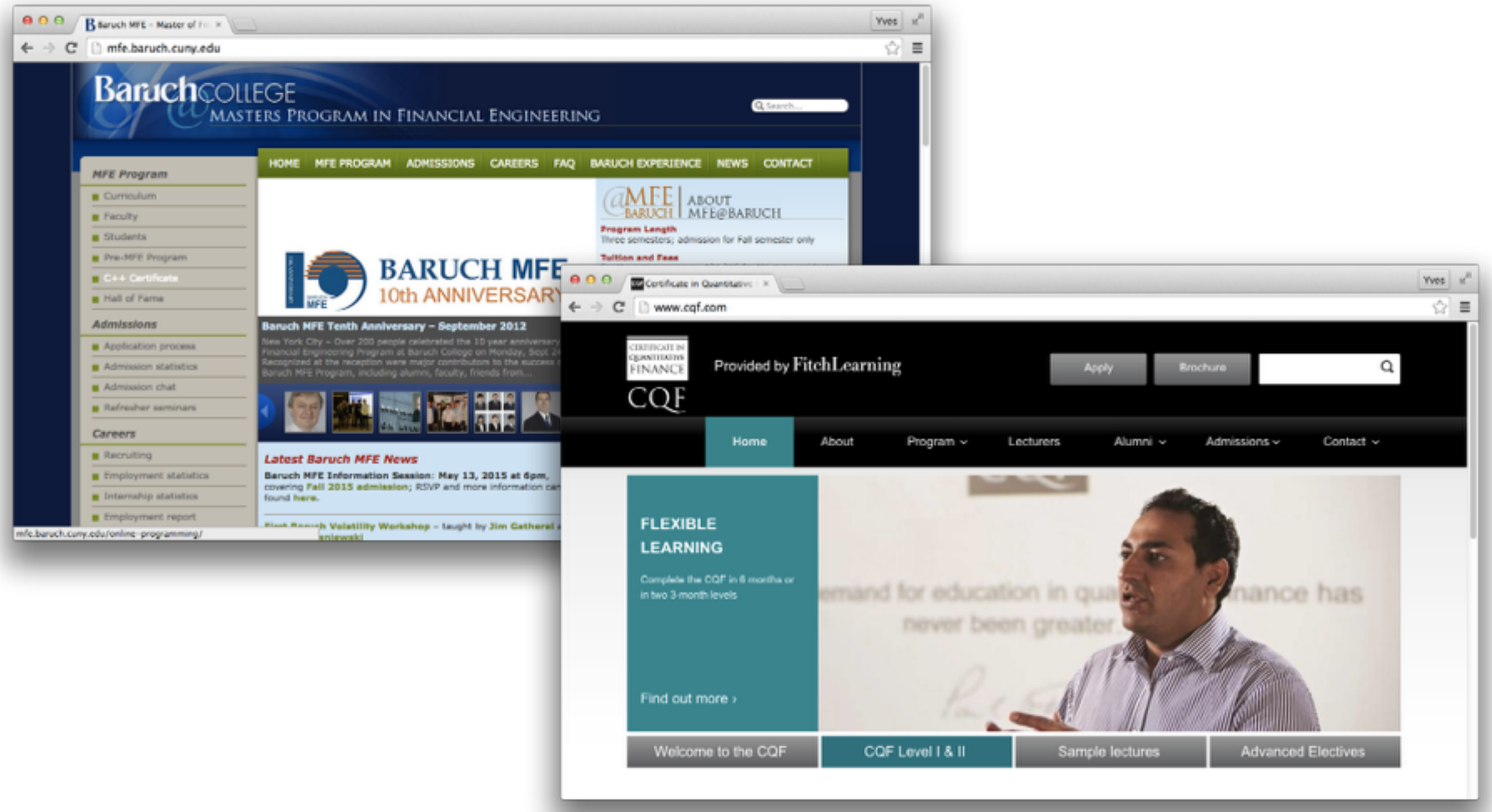


Third one in the making about “Listed Volatility and Variance Derivatives”.

Multiple others (e.g. about “Pandas for Finance”) now also available.

Education

Bringing formal education in this field to the next level



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