

# Banking CIO Outlook

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## Top 10 Banking Analytics Solution Providers - 2017

**T**oday's data-driven banking industry portrays a scenario where analytics is paving a productive path for banks, by offering meaningful insights on their underlying data. Although basic reporting and descriptive analytics are prevalent in the banking sector, the need of the hour is advanced predictive and prescriptive analytics.

Sophisticated technologies—like the emerging cognitive analytics for instance—are enabling banks to make better decisions and achieve profitable growth quarter-on-quarter. At the same time, with enhanced visibility into intricate information, such as individual financial health and behavioral patterns, banks now have the upper hand in risk mitigation and fraud prevention that help them comply with mandatory regulations.

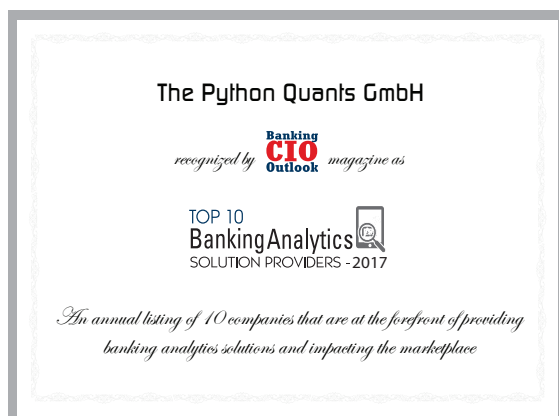
With the Blockchain gaining mainstream attraction, digital currencies such as Bitcoin and Ethereum are doing their rounds among consumers for payments and other transactions. To that end,

banks are leveraging analytics to prevent theft and fraudulent use of these digital currencies, by verifying and tracking the transactions with an unprecedented level of speed and transparency.

Identifying the numerous benefits of analytics, CIOs are on a constant quest to find solutions that deliver insightful information in a timely and accurate manner and also elevate productivity to a whole new level.

To help CIOs and CFOs find the right banking analytics solution provider, a distinguished panel comprising of CEOs, CFOs, VCs, analysts, and the Banking CIO Outlook editorial board has selected top players from the sector. The companies listed here demonstrate an ability to develop innovative technologies and methodologies along the banking value chain, while providing outstanding customer service.

We present to you Banking CIO Outlook's Top 10 Banking Analytics Solution Providers 2017.



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**Company:**  
The Python Quants Group

**Description:**  
Focused on Python and Open Source Technologies for Financial Data Science, Algorithmic Trading and Computational Finance

**Key Person:**  
Dr. Yves J. Hilpisch  
Managing Partner

**Website:**  
[tpq.io](http://tpq.io)

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## The Python Quants Group Enhance Financial Analytics

Over the years, the ecosystem of scientific, numerical and data analytics packages available for Python has grown rapidly and has finally made it the language of choice for the finance industry. More recently, banks have been reprogramming their trading and risk systems to run off Python rather than other languages. The Python Quants Group recognized this potential of the coding language long before its huge success and started using and marketing Python for financial analytics and applications. “Our major focus has always been on the use of Python and open source technologies for financial data science, computational finance and algorithmic trading,” says Yves Hilpisch, Managing Partner of The Python Quants.

Today, banks and other financial institutions cannot afford to ignore the tremendous potential that trends like open source, open data or open communities have to offer—but there are often no other big counterpart institutions to interact with. The Python Quants plays that role when it comes to Python introduction and deployment, training the people working in banks and providing ongoing support and services.

Python and open source technologies are empowering organizations and individuals to do financial and data analytics in real-time and on a highly customized basis as well as to rapidly develop new financial applications and deploy them based on weekly or even daily cycles. “We support financial institutions in introducing, training and deploying Python and a major building block in this regard is our Quant Platform,” adds Hilpisch. “Our training offerings are based on more than 10 years of

experience with Python for Finance and provide a hands-on learning experience, making heavy use, for instance, also of our Quant Platform.”

The company’s Quant Platform makes central, standardized Python deployment an easy and efficient affair while mitigating risks and reducing maintenance costs considerably during deployment. Based on modern web technologies and deployment techniques like Docker containers, the Quant Platform provides a full-fledged suite of development tools via the web browser without the need to install any kind of open source software locally on desktop or notebook computers.

In an instance, Eurex, one of the leading derivatives exchanges, wanted to support investors, traders, market makers and quants in the understanding and trading of their listed volatility and variance products. Eurex decided to use Python for this project and The Python Quants were tasked to create the content and in particular the Python codes accompanying it. While the content itself became part of the Eurex website, all Python codes were provided to Eurex partners and other interested parties on a Eurex-labeled version of the Quant Platform for easy code access and execution. “Deploying open source technologies, like Python, is often a tedious and sometimes even a risky process, with our services and products we help our clients to make this process more efficient and mitigate risks,” adds Hilpisch.

Another product of The Python Quants Group assisting organizations to model, price and risk manage complex portfolios of (multi-risk) derivatives with potentially complex correlation structures



Dr. Yves J. Hilpisch

is DX Analytics. Being an open source derivatives, portfolio and risk analytics library written exclusively in Python—it makes heavy use of the capabilities of Python and the capabilities of its numerical and data analytics libraries.

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As the Python ecosystem sees tremendous momentum, The Python Quants Group’s near-term focus will be on machine and deep learning techniques, technologies emerging in algorithmic trading as well as on cryptocurrencies and blockchain. “We will improve our value proposition in particular for hedge funds and other buy side players for the days to come,” concludes Hilpisch. **BC**