

Certificate in Python for Finance (CPF)

Become a Super Quant

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The Python Quants GmbH

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Why the CPF

Master quantitative finance, Python engineering, and AI in a single integrated program. The CPF combines seven proprietary books, 400+ hours of instruction, and 600+ notebooks so you can deploy production-ready analytics and AI in finance. Potentially earn the CPF certificate by completing the graded capstone.

1 Executive Overview

The **Certificate in Python for Finance (CPF)** is the flagship training program from The Python Quants. It blends rigorous quantitative finance with modern Python, data engineering, and AI. Directed by Dr. Yves J. Hilpisch, the CPF delivers:

- **400+ hours** of video instruction and focused live sessions.
- **6,000+ pages** of structured HTML/PDF material and seven published works.
- **600+ Jupyter notebooks** and **150k+ lines** of production-grade Python.
- A **graded capstone** with the potential to earn the CPF certificate.
- Indefinite platform access to purchased CPF resources and 24/7 Discord support from the TPQ team and community.

CPF is designed for four main groups: students and academics who want to bridge theory with executable research, buy-side and sell-side professionals upgrading their quant stack with Python and AI, data and tech professionals moving into finance, and career changers aiming for data-driven roles with a graded portfolio and recognized certificate.

2 Program Pillars

Financial Domain Expertise Derivatives, algorithmic trading, asset management, risk, and portfolio construction with executable case studies.

Python-Engineering Best practices for testing, packaging, containers, and cloud deployment tailored to reproducible finance workflows.

AI-Fluency Machine learning, reinforcement learning, NLP, and LLM integration for research, automation, and decision support.

3 Program Scale and Structure

Metric	Detail
Duration	16-week guided cohorts or fully self-paced (up to 12 months typical)
Access	Indefinite Quant Platform access to purchased CPF resources
Format	Video lessons, books, notebooks, quizzes, projects, and 24/7 Discord support from the TPQ team and community
Final Project	Graded research notebook reviewed by Dr. Hilpisch; with the potential to earn the CPF certificate
Bundle Bonus	For a limited time, CPF enrollment currently also includes access to The Data Scientist , The AI Engineer , and The Crypto Engineer

4 Learning Paths

16-Week Guided Cohort Structured timeline with live guidance and accountability.

Self-Paced (up to 12 months) Learn at your own speed with full resource access.

Flexible Enrollment Start anytime; combine cohort sessions with self-paced study.

Weekly Coaching Guides Day-by-day instructions for maximum learning effects; full-time and part-time plans.

5 Curriculum Overview

The curriculum is organized into four clusters. Each module ships with videos, notebooks, datasets, and exercises.

5.1 Foundational Modules

- **Finance with Python** – integrated finance principles and idiomatic Python.
- **Python for Finance Basics** – NumPy, Pandas, vectorization, and tooling.
- **Mathematics Basics** – linear algebra, calculus, optimization, probability.
- **Tools – Skills** – Git, Docker, Linux, shell, packaging, and automation.

5.2 Core Applications

- **Python & AI for Asset Management** – portfolio optimization, factor models, risk analytics.
- **Python & AI for Algorithmic Trading** – strategy design to deployment with monitoring.
- **Python for Computational Finance** – derivatives pricing with DX Analytics and scenario testing.
- **Python & AI for Rates, Bonds, and Credit** (*upcoming – launching with the September 2026 cohort*) – rates, bonds, credit, fixed-income derivatives, portfolio management, risk, machine learning, and GenAI workflows.

5.3 Artificial Intelligence Track

- **Data Science Basics** – exploratory data analysis, statistics, visualization.
- **Deep Learning Basics with PyTorch** – supervised/unsupervised ML, model evaluation, production workflows.
- **Reinforcement Learning** – agents for trading, hedging, and stochastic control.
- **Natural Language Processing** – transformers, sentiment, LLM orchestration.

5.4 Extensions & Add-Ons

- **Crypto foundations**: hashing, blockchain, DeFi, custody considerations.
- **Algo trading with GenAI**: code assistants, LLM copilots, and agentic tooling.
- **Quant research clinics**: live deep dives into new datasets, models, and evaluation techniques.

6 Quant Platform

All CPF resources live on the Quant Platform.

- **Video library** with AI-generated summaries and chapters.
- **Execution-ready notebooks** – launch in the browser, no setup required.
- **AI assistant** trained on program content for precise answers.

- **Full-text search** across transcripts, slides, notebooks, and books.
- **Quizzes – exercises** – yes/no checks, MCQs, targeted drills, and full project tests with concise tutorials.
- **Smart note taking** – searchable, time-stamped notes for every video to resume instantly.
- **Global forum – Discord** – 24/7 technical and strategic support, networking, hiring.

7 Director

Dr. Yves J. Hilpisch is the founder and CEO of The Python Quants and The AI Machine. He created DX Analytics, speaks globally on AI-driven finance, and authored seven industry-defining published works. He continues to innovate in AI learning with [The AI Engineer](#). His conferences, bootcamps, keynotes, and publications shape the industry conversation.

8 Published Works

Every CPF cohort receives the complete digital library (PDF + HTML) of Dr. Hilpisch's published works:

- *Python for Finance (2nd Ed.)* – O'Reilly.
- *Python for Algorithmic Trading* – O'Reilly.
- *Artificial Intelligence in Finance* – O'Reilly.
- *Reinforcement Learning for Finance* – O'Reilly.
- *Financial Theory with Python* – O'Reilly.
- *Derivatives Analytics with Python* – Wiley.
- *Listed Volatility & Variance Derivatives* – Wiley.

Exclusive Early Access

CPF delegates receive early access to the upcoming third edition (700+ pages) of Dr. Hilpisch's O'Reilly book *Python for Finance*, adding a comprehensive new reference that deepens the core curriculum.

9 Who Joins the CPF?

Students & Academics Bridge theory with production-ready analytics and code, turning theses and research projects into executable notebooks and studies.

Buy-Side & Sell-Side Professionals Upgrade quant stacks with Python, automation, and AI for trading, structuring, risk, and portfolio roles.

Data & Tech Professionals Bring AI and engineering skills into finance, learning domain-specific models, instruments, and workflows.

Career Changers Transition into data-driven finance roles with a graded portfolio project and a recognized certificate.

Delegates from **70+ countries** have participated. Support includes live cohort sessions twice to three times per week, 24/7 forums, Discord, expert feedback, and continuous content releases.

10 Testimonials

- *The CPF has changed how I work.* – Artem
- *The holy grail of algorithmic trading education. Real code, real projects, and phenomenal support.* – Konstantinos
- *The value already exceeds the price. Incredible content and community.* – Eric
- *Customer service and materials are world-class. The CPF keeps me ahead of industry change.* – Vito

11 Enrollment and Pricing

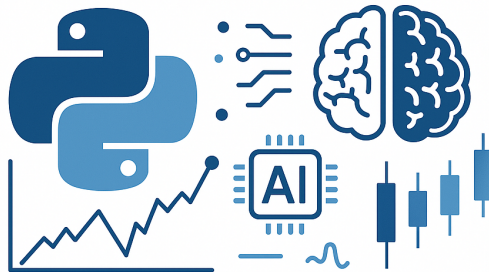
CPF Bundle – **€2,999** (excluding VAT if any)

indefinite platform access to purchased CPF resources.

Limited-time bundle: CPF enrollment currently also includes access to [The Data Scientist](#), [The AI Engineer](#), and [The Crypto Engineer](#) at no extra cost.

Payment options – Stripe checkout or invoiced bank transfer (write to team@tpq.io). Corporate packages available.

CERTIFICATE IN PYTHON FOR FINANCE CPF PROGRAM



THE PYTHON QUANTS

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