

PAVEL MISKA

Senior Software Developer · Quant Developer · Trading & Risk Systems Architect



CONTACT

Location

Nuremberg, Germany

Citizenship

EU Citizen · Slovakia

LANGUAGES

English ●●●●●

German ●●●●●

Slovak ●●●●●

Czech ●●●●○

Russian ●●○○○

CORE SKILLS

Languages

Python 3.11 · C# · C++ · Java

F# · R · Matlab · VBA

Frameworks

FastAPI · SQLAlchemy · Pydantic

React · Vue.js · AngularJS · WPF

Bloomberg API · QuantLib

Databases

PostgreSQL · TimescaleDB · Redis

Oracle · MSSQL · Cassandra

Infra / DevOps

Docker · Kubernetes · GitHub Actions

Jenkins · REST · WebSockets · CI/CD

Trading Systems

Sophis Risque / Value · ENDUR

FrontArena · MUREX

EUREX API · EURONEXT API

EDUCATION

TU Bratislava

Electronics & Computer Science 1993
– 1996

J.P. Murgas College

Electronics, Telecom, CS 1986 – 1991

NOTABLE

- Speaker EC2000 E-Commerce

PROFILE

Senior Software Engineer and Quant IT Architect with 25+ years of experience in trading systems, risk and portfolio technology, quantitative models, market-data pipelines, and cloud-native microservices. Specialized in pricing engines, risk models, market-data feeds, Sophis integration, and high-performance trading infrastructure. Strong background in commodities, credit, FX/IR, and multi-asset analytics.

PROFESSIONAL EXPERIENCE

iTechFinance · 2026 – Present

Senior Software Developer & Architect

Market-data engine, pricing microservices, risk pipelines, trading dashboards

Tech: Python 3.11, FastAPI, SQLAlchemy async, Pydantic v2, React, Vue.js, PostgreSQL, TimescaleDB, Redis, Docker, Kubernetes, GitHub Actions

- ▶ Designed and built a cloud-native market-data engine
- ▶ Developed pricing microservices for multi-asset products
- ▶ Implemented asynchronous risk-calculation pipelines
- ▶ Built trading dashboards and web-based risk UI
- ▶ Introduced CI/CD automation and containerised deployment workflows

XAIA AG · 2014 – 2024

Senior Software Engineer

Credit pricing, NAV calculation, exposure management, market-data pipelines

Tech: Sophis Value, C#, WPF, WCF, NHibernate, Matlab, R, Oracle, MSSQL, Cassandra, Git, Jenkins

- ▶ Built pricing and exposure tools for credit portfolios
- ▶ Developed NAV-calculation modules and workflow automation
- ▶ Implemented market-data pipelines and time-series storage on Cassandra
- ▶ Optimised Sophis Value integrations

RWE Supply & Trading · 2012 – 2014

Senior Developer

Risk calculations, market-data ingestion, ENDUR workflows, reporting

Tech: C#, Oracle, MSSQL, ENDUR, AngularJS, Git, CI/CD

- ▶ Developed risk-calculation modules for energy trading desks
- ▶ Built market-data ingestion and transformation pipelines
- ▶ Integrated ENDUR workflows into FO/MO/BO processes
- ▶ Automated reporting and improved data-quality controls

Aquantum AG · 2020 – 2021

Senior Developer

Commodity fund workflows, risk reporting, Bloomberg integration, NAV

Tech: C#, REST, Oracle, MSSQL, MySQL, Bloomberg API, HTML/CSS/JS, Git

- ▶ Developed risk-reporting components for commodity funds
- ▶ Integrated Bloomberg market-data feeds
- ▶ Improved data-quality and reconciliation processes

ING Brussels / Amsterdam · 2009 – 2011

Quant / IT Developer

Commodity curve building (oil, gas, power, metals, agri), vol surfaces, P&L Explain

Tech: Sophis Risque, SophisAPI, C++, F#, PLT Scheme, Excel/VBA, Bloomberg API

- ▶ Built multi-commodity forward-curve engines
- ▶ Developed volatility-surface models for commodity options
- ▶ Delivered P&L Explain and sensitivity analytics

PAVEL MISKA

Senior Software Developer · Quant Developer · Trading & Risk Systems Architect

- OCR: EU Commission / EP / CJEU
- Low-latency EUREX/EURONEXT
- Cloud-native market-data engine
- Sophis / ENDUR / MUREX integration

PUBLICATION

Dirty Quart Dozen

Functional Programming Approaches for Trading & Risk Systems

Pavel Miska, Dr. Mike Sperber, Dr. Heribert Schütz

- ▶ Supported traders with daily pricing and scenario workflows

DetraCo AG · 2008 – 2010

Software Engineer

Automated trading, order routing, real-time monitoring

Tech: C++, EUREX API, EURONEXT API, Multithreading, WPF

- ▶ Built low-latency trading components for EUREX / EURONEXT
- ▶ Implemented order-routing logic and monitoring dashboards

HVB / UniCredit AG · 2001 – 2009

Quant / IT Developer

Pricing (FX, IR, Credit, Exotics), risk analytics, market-data pipelines, model validation

Tech: QuantLib, C++, Java, F#, C#, Sophis Risque, FrontArena, MUREX, Oracle, MSSQL

- ▶ Developed pricing models for FX, IR, credit and exotic products
- ▶ Built market-data pipelines and risk-calculation components
- ▶ Integrated Sophis Risque and FrontArena
- ▶ Implemented model-validation tools and regression-test frameworks

Assenagon AG · 2006

Developer

Fund-management workflows

Tech: Sophis Value, Oracle, MSSQL

- ▶ Extended Sophis Value workflows and improved data integration

Sizar Group / Infotechnique SA · 1998 – 2001

Software Engineer

OCR digitisation, document management, EU institutions (EC, EP, CJEU)

Tech: Java, C++, Visual Basic, OCR, DMS, XML, Oracle, MSSQL

- ▶ Developed OCR and DMS solutions for EU institutions
- ▶ Built workflow automation for document-processing systems

HT-Computers GmbH · 1996 – 1998

Developer

Groupware, enterprise communication, e-commerce

Tech: C++, Java, Lotus Notes/Domino, HTML/CSS/JS, MSSQL

- ▶ Built groupware, messaging components and early e-commerce frameworks

Login AG · 1995 – 1996

Developer

Groupware processes, workflow automation

Tech: Java, C++, Visual Basic, Lotus Notes, MSSQL

- ▶ Developed workflow automation tools and groupware extensions

Technical University Zvolen · 1993 – 1995

Research Assistant

Statistics, GIS modelling, scientific data analysis

Tech: SPSS, GIS, C/C++

- ▶ Statistical modelling and GIS research; data-analysis tools

Client · Business Domain · Technology Overview

Period	Client / Employer	Business Domain	Technology Stack
▶ 2020s — Cloud & Modern Stack			
2026 -	iTechFinance	Market-data engine · Pricing microservices · Risk pipelines · Trading dashboards	Python 3.11, FastAPI, SQLAlchemy, Pydantic, Kubernetes, GitHub Actions
2020 - 2021	Aquantum AG	Commodity fund workflows · Risk reporting · NAV support · Bloomberg integration	C#, REST, Oracle, MSSQL, MySQL, Bloomberg
▶ 2010s — Risk, Credit & Energy			
2014 - 2024	XAIA AG	Credit pricing · NAV calculation · Exposure management · Market-data pipelines	Sophis Value, C#, WPF, WCF, NHibernate
2012 - 2014	RWE Supply & Trading	Risk calculations · Market-data ingestion · ENDUR workflows · FO/MO/BO reporting	C#, REST, Oracle, MSSQL, ENDUR, Angular
▶ 2000s — Quant, Trading & Commodities			
2009 - 2011	ING Brussels / Amsterdam	Commodity curve building (oil, gas, power, metals, agri) · Vol surfaces · P&L Explain · Trader support	Sophis Risque, SophisAPI, C++, F#, PLT
2008 - 2010	DetraCo AG	Automated trading · Order routing · Real-time monitoring · EUREX / EURONEXT	C++, EUREX API, EURONEXT API, Multiplatform
2006	Assenagon AG	Fund-management workflows · Data integration · Reporting	Sophis Value, Oracle, MSSQL
2001 - 2009	HVB / UniCredit AG	Pricing (FX, IR, Credit, Exotics) · Risk analytics · Market-data pipelines · Model validation	QuantLib, PLT Scheme / Scheme48, FinFrontArena, MUREX, Oracle, MSSQL
▶ 1990s — Engineering & Enterprise			
1998 - 2001	Sizar Group / Infotechnique SA	OCR digitisation · Document management · Workflow automation · EU institutions (EC, EP, CJEU) · Dexia	Java, C++, Visual Basic, OCR systems, Documentum
1996 - 1998	HT-Computers GmbH	Groupware architecture · Enterprise communication · Security · E-commerce	C++, Java, Lotus Notes/Domino, Message Queue
1995 - 1996	Login AG	Groupware processes · Workflow automation	Java, C++, Visual Basic, Lotus Notes/Domino
1993 - 1995	Technical University Zvolen	Statistics · GIS modelling · Scientific data analysis	SPSS, GIS systems, C/C++