# Arkadiy Klyukin, CQF, FRM

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## Summary

Quant-trader with extensive hands-on experience in spot and derivatives trading, strategies developement and implementation (primary languages: Python, C#). Quantitative research, systematic trading, and derivatives structuring. Built and implemented various types of trading models and algorithms: market making, order execution algorithms, decision-based trading, and statistical arbitrage. Comprehensive knowledge of sell-side IT infrastructure, market technical microstructure, and risk management systems. Developed tools for manual and autonomous trading, auxiliary tools for discretionary trading, multithreaded algorithms, high-frequency trading, client-server applications, and machine learning techniques implementation. Continuously focused on adding value to everything that is within reach, deep-diving into every aspect. Visa status: fully authorized to work in the US.

#### Experience

Gazprombank, one of the largest domestic banks with an extensive international market presence Quant Strat | Fixed Income, Currencies and Commodities trading desk

Oct 2018 - Dec 2022 Moscow, RF

- Electronic FX trading in Equity, Fixed Income, CIS and G10 currencies, Precious Metals, Commodities. Strategies: statistical arbitrage, pairs trading, geographical arbitrage, cross-asset arbitrage.
- ➡ Electronic trading in CIS and G10 interest rates: OIS, xCCY, FX swaps
- Implementing and supporting long/short and discretionary strategies, currency selection within buckets, seeking alpha
- ➡ Improving trading tools and desk infrastructure, developing and optimizing in-house technology to increase efficiency and improve information flow
- Participation in consultations and the development of the derivatives products market section on local exchange MOEX
- Providing internal sales team and institutional clients with pricing, trade ideas, participating in tailored products design Relevant Projects:
- ✓ Elaborated and implemented machine learning techniques in market making algorithms, providing best prices to order book, looking for best markup/trade tradeoff (real-time reinforcement learning, prototyping in Python, implementation: C# .net)
- ✓ Developed IR pricing tool, launched providing liquidity in interest rate products to MOEX, to Bloomberg screen and bbti (C#, VBA, Bloomberg API)
- ✓ Elaborated and implemented IR option pricing engine with volatility surface calibration and modeling (Black-76)
- ✓ Formed and implemented new FVA and ColVA approaches for rub market instruments, exploited arbitrage between approaches on the market
- ✓ Participation in risk management front office system (Calypso) integration from scratch on every level, from pricing models homologation and validation to straight-through processing and workstation tools and reports design

**Promsvyazbank**, one of top 2 privately held local banks, with cutting-edge technologies in trading Nov 2012 - Sep 2018 e-fx Trader | electronic FX and Commodities trading desk Moscow, RF

- → Electronic market making and flow trading in G10, and CIS currencies (STIR and FX)
- Developed and integrated electronic pricing engine which led to becoming top 1-2 bank in terms of trading volume
- Providing liquidity to ECNs, corp and retail clients, banks WL trading platform
- → Coverage of all business and technical aspects of electronic trading (prime brokers, legal, infrastructure vendors)
- → Commodities: energy/agricultural/metals flow trading

#### Relevant Projects:

- ✓ Developed feeds collecting and smart order matching engine from scratch (C#, FIX, SQL)
- ✓ Integrated statistical arbitrage algorithms (CME-MOEX), retail customers flow, and high correlated ccy-pairs liquidity extraction into the order routing and matching circuit
- $\checkmark$  Added short term IR liquidity providing/absorbing to/from WL single-bank platform
- ✓ Established transition to UDP protocols, added feeds from the exchange-traded D1 derivatives market (FAST, Plaza)
- ✓ Placed engine segments to LD4, Equinix, MOEX collocations which improved roundtrip dramatically
- ✓ Developed proprietary client-server trading application for FX basket trading (FIX, Sockets, WPF)

# Education

Certificates

CQF Institute, Fitch | Quantitative finance programm, Leading Professor: Dr. Paul Wilmott

Quantitative Finance Charter

London, UK Jan 2022 - Jul 2022

New Economic School | Morgan Stanley programm, Rector: Dr. Sergey Guriev

Moscow, RF

Master in Finance

Sep 2013 - Jul 2015

National Research Nuclear University "MEPHI" | Applied Maths in Economics programm

Moscow, RF

Sep 2007 - Jul 2012

Economist Mathematician

FRM Certified, GARP

CFA Level III Candidate, CFA Institute

## Skills

Math: statistics, econometrics, quantitative finance, portfolio optimization, machine learning, reinforcement learning Programming: C#, Python, .NET, QuantLib, QuickFIX, WPF, Sockets, Multithreading, sklearn, pyfolio, Git, Unix/Linux, bash, SQL, VBA,IATEX, Numerix, Calypso, Murex, Misys Summit, Bloomberg, Reuters Dealing

Protocols: FIX, FAST, PLAZAII, various ECN APIs, SSH Other Interests: FPGA, PCB Design, IOT, 3D Modelling

#### Awards

Won trading competition "Algorithmus 2012", nomination "Stable Income" (highest sharpe ratio). Asset class: Equity. Strategy: fractal MA, B. Mandelbrot