David Kogosov

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EXPERIENCE HIGHLIGHTS:

- Hands-on technical lead
- Ultra-low-latency trading systems
- Network communications and messaging
- Performance tuning and wire data analysis
- Kernel bypass technology
- Testing automation
- Software architecture and design
- Big data and NoSQL databases

SKILLS: "Mechanical sympathy", C++, STL, Boost, OpenOnload, TCP/IP, UDP, Multicast, LBM/UME, SQL/NoSQL

CHANGE LOG:

12.2021 – present Schonfeld Strategic Advisors, NY NY Senior SWE

- Architected and led development of low-latency messaging. It performs on par with the best single-host multi-producer, multi-consumer commercial systems. Multihost synchronization is done via multicast and tcp, sequenced and unsequenced streams supported as well as State Of the World (SOW).
- Made multiple enhancements to the existing OMS.
- Participated in development and did performance tuning for client and broker gateways, drop copy applications.
- Performance optimization and enhancements of order and position visibility application.
- Multiple improvements to the trading infrastructure.

08.2015 – 12.2021 Goldman Sachs, NY NY VP

- Led the development of high-throughput local messaging based on direct I/O and shared memory.
- Designed and implemented compression and multiplexing of transaction flow for wireless venue connection.
- Designed and led the development of software integration with FPGA for ultra low-latency symbiotic trading systems.
- Drove the latency monitoring project based on packet capture.
- Designed and prototyped a high-throughput messaging bus based on the sequencer pattern.
- Spearheaded low-latency development in GS electronic trading group.Architected, designed, prototyped and led the development of highly distributed ultra-low-latency trading software for DMA and algorithmic trading systems.
- Developed custom decoders for Corvil appliances and custom protocol dissectors for Wireshark.
- Extreme performance tuning of low latency DMA systems.

12.2014 – 08.2015 Morgan Stanley, NY NY Consultant

- Designed and implemented the low latency risk-check library for major in-house low latency trading systems.
- Design and development of a rule matching algorithm providing check rule resolution in sub-microsecond time.

10.2008 – 12.2014 Credit Suisse, NY NY Consultant

- Data storage and query layer for the distributed NoSQL(MongoDb) database.
- Design, architecture, project leadership, and development of ultra low-latency, high-performance FIX engine and Market Access Gateway(Magic) supporting FIX and native exchange protocols. Development done in C++ using STL, Boost and other libraries. Messaging based on EMS and 29 West technologies, including multicast and IPC-based transports. Kernel bypass technology.
- Regression testing automation based on the production logs playback, support of FIX and venue native protocols.

07.2007 – 10.2008 MarketAxess, NY NY Consultant

- Design and development of fixed-income dealer trading system.
- Development of server components including matching engine as well as Swing-based front end. Development done in Java on Windows/Linux platforms.

05.2005 – 06.2007 International Securities Exchange, NY NY Consultant

- Design and development of key services and libraries for ISE Stock Exchange. Responsible for trade storage, corrections, reporting, reference data updates, high volume quotes reporting, book feed distribution, data persistence, and other services. Development done in C# on .Net 2.0 platform.

06.2004 – 05.2005 JPMorgan Chase, NY NY Consultant

- Design and development of Web Services and applications for fixed income portfolio management and analytics.

12.2001 – 06.2004 Sector, Inc. (subsidiary of SIAC), NY NY Consultant

- Design and development of email archiving service components. Analysis of NYSE specialist trading compliance.
- Development of NYSE OpenBook real-time internet-based display. Real-time price quote system(CTS/CQS NBBO and NYSE Depth Quote). Developed multicast feed-handler framework, Java applet displaying the quotes.

EDUCATION:

Moscow State University, Department of Economics	Ph.D. Econometrics
Moscow Institute of Physics and Technology	M.S. Computer Science