

Dmitry Khvorov

PRINCIPAL SOFTWARE ENGINEER · TECH LEAD

📞 +65 90265669 | ✉️ dmitry.khvorov@gmail.com | 📅 April 23st, 1983 | 🏠 khvorov.com | 🌐 khvorov | 🔗 dmitry-khvorov-1708071a

Summary

Expert software developer with 20+ years of experience specializing in designing and developing high-performance trading systems. Proven ability to deliver high-quality, scalable, and efficient software solutions that consistently exceed expectations. Proficient in a wide range of programming languages, development practices, and technologies, with a passion for solving complex technical challenges.

Strong expertise in financial markets, including traditional, crypto, and DeFi ecosystems, complemented by a solid background in data analysis, financial modeling, and machine learning. Skilled at leading teams and delivering results under tight deadlines.

Skills

Programming Languages	C++, Python, Go, Java, R, x86 Assembler, Shell Scripting
DevOps	AWS, GCP, Docker, Ansible, Terraform, CI/CD (TeamCity, Jenkins)
Databases	SQL Databases, MongoDB, Clickhouse, Reddit, InfluxDB
Financial Products	Cash Equities, Futures, FX Spot/Forwards/Swaps, Options, Digital Assets
Quant Research	Statistics, Financial Econometrics, Time Series Analysis, Portfolio Optimization
Trading	Algorithmic trading of Crypto Spot/Future products on centralized exchanges
Languages	English, Russian

Experience

DRW Trading Group

SENIOR C++ SOFTWARE DEVELOPER

Singapore

Aug 2022 - Present

C++, CUDA, PYTHON, LINUX

- Developed high-frequency/low-latency trading strategies for APAC & European equity markets for auctions and intraday trading
- Profiled and optimized performance bottlenecks in the strategies
- Migrated model evaluation code to Nvidia GPUs for faster inference in production
- Designed and implemented highly-parallelized tools for training trading models on GPUs

Fairtide, Quantitative Hedge Fund

TECHNICAL LEAD, CRYPTO ALGO-TRADER

Singapore

Aug 2018 - Aug 2022

C++, PYTHON, R, GO, JAVA, MONGODB, MYSQL, AWS, LINUX

- Architected and implemented trading platforms for low-to-mid frequency trading of futures on US and European exchanges and digital assets. That includes architecture, core libraries, feed handlers, simulators, market connectivity, order management, optimal execution, risk management, trade booking etc
- Built high-performance distributed data storage platform for L2 market data (futures and crypto) with accessible APIs
- Designed backtesting engines for tick-by-tick simulation of futures and crypto trading strategies
- Built an environment for quant researchers to develop, test and deploy models into production
- Developed firm-wide portfolio optimization and risk management algorithms
- Research and development of trading strategies based on machine learning algorithms (genetic programming, ensemble models)
- Developed relative value trading strategy for crypto perpetual futures
- Contributed to IT infrastructure development and maintenance

Standard Chartered Bank

TECHNICAL LEAD OF E-FX TRADING PLATFORM SOFTWARE DEVELOPMENT TEAM, DIRECTOR

Singapore

Jun 2016 - Aug 2018

C++, JAVA, ORACLE DB, LINUX

- Overhauled core components of low-latency FX trading platform to improve stability and performance
- Optimized pricing and order execution services to improve latency & throughput
- Implemented regulatory requirements for US and European FX markets
- Led a team of six software engineers

Bank of America Merrill Lynch

SENIOR SOFTWARE DEVELOPER, ASSISTANT VICE PRESIDENT

Singapore

Jul 2011 - Jun 2016

C++, JAVA, SYBASE, LINUX

- Developed pricing services for FX spot/forward/swaps
- Create low-latency order execution systems and smart order routers
- Designed cross-system API and middleware to integrate e-FX trading platform with front & middle-office systems in the bank
- Migrated C++ codebase to C++14 and mentored the team on new C++ features

General Satellite Corp.

Saint-Petersburg, Russia

TEAM LEAD, HEAD OF DEVICE DEVELOPMENT DEPARTMENT

Aug 2004 - Jun 2011

C/C++, ASSEMBLER, VHDL, LINUX/WINDOWS

- Managed development of embedded security devices, middleware and high-speed data processing applications for Conditional Access Systems for Digital TV
- Developed high-throughput encryption device for MPEG transport stream protection
- Developed architecture, security model, firmware, and personalization system for three generations of highly secure smart-cards for Conditional Access System DRECrypt and PROCrypt
- Implemented proprietary security algorithms to protect sensitive content on users hardware devices (smart-cards, key tokens etc)
- Designed high-throughput hardware random numbers generator
- Developed software for digital satellite and terrestrial TV receivers
- Supervised a team of seven developers, QA and electronic engineers

Krasnaya Zarya, Factory

Saint-Petersburg, Russia

EMBEDDED SOFTWARE DEVELOPER

Jul 2003 - Feb 2004

C, LINUX

- Developed drivers for HDLC protocol used to communicate between blocks of a telephone switch system
- Developed drivers for a PCI card used to multiplex digital voice streams

Scientific Research Insitute "Rubin"

Saint-Petersburg, Russia

JUNIOR SOFTWARE DEVELOPER

Sep 2002 - Sep 2003

C, LINUX

- Developed GUI tool to configure a firewall
- Administration of Linux servers

Night Bird LLC

Saint-Petersburg, Russia

JUNIOR SOFTWARE DEVELOPER

Aug 2001 - Jul 2002

C, ASSEMBLER, DOS/LINUX

- Developed firmware for a PCI card and various sensors used in a smart-home automation system

Education

Peter the Great St.Petersburg Polytechnic University

Saint-Petersburg, Russia

M.ENG. IN RADIOPHYSICS AND TELECOMMUNICATIONS

Sep. 2000 - Feb. 2006

GPA 4.7/5

- Graduate work thesis "Modeling and research of low-frequency filters based on current conveyors and switching capacitors"