Artur Dossatayev

CONTACTS

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SUMMARY

Data-driven **Quantitative Developer** with extensive experience in **algo trading, risk modeling, market microstructure analysis, and liquidity management**. Strong proficiency in **Python, Rust, SQL**, and big data processing tools like **Apache Spark and Neo4j**. Proven ability to develop and deploy **high-performance trading systems, fraud detection models, and risk management frameworks**. Passionate about leveraging **statistical arbitrage strategies, backtesting, and financial modeling** to optimize trading performance. Open to **quantitative finance, trading, and risk analysis roles** in the UAE.

PROFESSIONAL EXPERIENCE

Data real-time analytics engineer, *ZFX*   **Aug 2023 – Present**
- **Developed & deployed a real-time anti-fraud detection system** using **Neo4j**, enabling high-speed **1-3 second query response times** for rapid customer connectivity analysis.
- Successfully processed multi-terabyte liquidity providers order flow (L3) data using Apache Spark to create a compressed (x10) top book (L1) dataset for further analysis by the risk & trading department.
- Developed a price delay analysis dataset by merging liquidity provider and in-house tick data in collaboration with risk and trading teams, leading to the successful elimination of arbitrage exploits.
- Pioneered broker rebates analysis & visualization for optimizing company expenses, which helped to optimize unprofitable branches by 20%.

Quantitative developer/analyst, *Kontone*   **Nov 2022 – Present**
- Engineered cross-exchange statistical arbitrage models to exploit cryptocurrency market inefficiencies. These models utilized real-time bid-ask spread monitoring to identify and profit from transient pricing discrepancies.
- Enhanced trade execution by implementing a price weighting strategy utilizing limit orders as a maker, improving overall trading performance.
- Played a key role in the collaborative implementation of a comprehensive trading framework, working closely with developers and analysts to bring the system online.
- Enhanced order routing algorithms to minimize potential slippage and improve execution efficiency.
- Developed a robust and modular Python framework for algorithmic cryptocurrency trading. The framework implements a workflow with efficient data processing and real-time execution, with inter-module delays consistently below 5 milliseconds and sub-second decision-making capabilities
- Developed and deployed algo trading strategies using the QuantConnect platform with yearly ROI of 10%.
- Utilized the IB API to automate trading activities and execute trades seamlessly
- Applied **Black-Scholes** and **Heston models** in conjunction with event-driven backtesting (eliminating forward looking bias) to estimate and compare the performance characteristics of quantitative options strategies.

Data Engineer, *Coins.ph*   **Nov 2022 – July 2023**
- During a challenging period of layoff, provided comprehensive support to the team's projects to ensure their smooth and effective progress. Offering my expertise and assistance, demonstrated my strong commitment to teamwork, adaptability, and work ethic.
- Developed data model with 20+ datasets for newly implemented crypto exchange within our company
- Assessed the performance of top 5 crypto liquidity providers within our platform by analyzing their trading volume and top book, providing insights into their contribution to overall platform liquidity.

Data Finance Engineer/Team lead, *Coins.ph*   **Oct 2021 – Oct 2022**
- As a skilled team coordinator, fostered knowledge sharing and coordinated team activities.
- Implemented a **finance reconciliation framework** based on Spark streaming, resulting in more efficient and accurate financial operations. Streaming approach decreased time to action from 1 day to 30 minutes.
- Delivered reporting of 10+ charts for **Ripple blockchain network**, which supported managerial decisions.

Business Intelligence Engineer, *Coins.ph*   **Sep 2020 – Oct 2021**
- Completed **migration of 1000+ reports for the finance team between BI tools** in 2 months, ensuring smooth continuity of analytics and visualization.
- Automated the process of adding new cryptocurrencies, reducing workload by 80% for finance team
- Automated **customer verification proces**s, by implementing a system that detects incorrect forms based on predefined rules. This reduced manual workload by 15%, demonstrating skills in automation, process improvement and project management.

Jul 2018 – Sep 2020

Business Intelligence analyst, *OLX Group*
- Optimized user banning process, saving up to 50 human-hours per month.
- Conducted multiple employee training sessions on Excel and self-service systems.
- Automated **sales plan calculation** for B2B sales department, incorporating previous sales and seasonality.

Data analyst, *Home Credit Bank*   **Mar 2016 – Apr 2018**
- Automated bonus calculation process for 3000+ employees, saving up to 16 human-hours per month.
- Optimized **PL/SQL queries,** achieving a **10x** reduction in execution time.

Research Associate, *JSC Kazakhtelecom*   **Oct 2013 – Feb 2016**
- Automated multiple reports using **VBA**, reducing the error rate and saving up to 20 human-hours per month.

Professional freelancer, *Upwork*   **Oct 2013 – Feb 2015**
- Created a fully automated reporting system for a business on Amazon Marketplace. This system allowed for efficient data analysis and visualization, resulting in improved business decision-making.
- Designed a comprehensive business case for a coffee producer, utilizing **Monte Carlo simulation** to analyze the impact of risk on key metrics.

PROJECTS

Blockchain data analysis (Project)
Leveraged SQL to develop a data extraction solution for on-chain NFT sales data from the Polygon blockchain (OpenSea). This work resulted in a rich transaction dataset containing buyer/seller information, transaction identifiers, and cryptocurrency/USD values, demonstrating expertise in blockchain data analysis within the NFT domain. (demo)

SKILLS & TOOLS

Languages: **SQL**, **Python, Rust, R, Julia**
Orchestration tools: **Airflow**, **Dagster**
DBs: **Postgres**, MySQL, Clickhouse, Redis
Distributed computing: **Apache Spark**
Cloud providers: **Databricks**, AWS [S3, Athena, EC2, RDS, Redshift, Lambda], GCP [**BigQuery, GCS, Dataproc**]
Engineering: Git, Docker-compose, **Kubernetes, Linux, Network architecture**, OSI model
Spreadsheets: Excel, Google Sheets
Other: **Strategies backtesting, Algorithmic trading, QuantConnect, Blockchain analysis**
Soft skills: Leadership, Teamwork, Communication, Problem-solving, Adaptability

EDUCATION

PhD student (*Data science*), *IITU*   **Sep 2022 – Present**
Master's degree (M.Sc. in *Telecommunication*), *AUPET [GPA - 3.63/4]*   **Sep 2013 – Jun 2015**
Bachelor's degree (*Telecommunication*), *AUPET [GPA - 3.81/4]*   **Sep 2009 – Jun 2013**
Financial analyst, L1 passed *CFA institute*   **2016 – Present**