IVAN VOROBIOV

Quantitative Analyst & ML Researcher

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EXPERIENCE

Senior Quant / Data Scientist

Sber

Nov 2021 - Ongoing

Moscow

- Exotic options pricing
- Deep generative models for time series imputation
- Classic ML Models for Anomalies Detection

Research Assistant

Research Grant (supervised by Prof. A.Ya. Kanel-Belov)

Sep 2019 - Ongoing

Moscow

- Abstract Algebra (representations of profinite groups)
- (Topological) Galois Theory

PROJECTS

Universal American-Style Derivatives Pricer Sber & MIPT

Managed a team of 3 persons

- Comparison: Regression Based MC vs Reinforcement Learning
- Universal API for any american-style derivative
- Quasi Monte Carlo and other convergence improvements will be implemented soon
- Open repo 🗘 v0r0bi0v/AmericanOptionsPricingApproaches

Testing Diffusion TS Models on Stochastic Processes Sber & YSDA

Most SOTA generative time series models are tested only on large industrial datasets - a flawed approach for this emerging field. We demonstrated their failure on low-dimensional stationary stochastic processes. We created the new architecture, that performes much better.

While project details/architectures are under NDA, our open presentation is available: v0r0bi0v/TS-Diffusion-on-Stoch-Processes

PUBLICATIONS

- Vorobiov, Ivan. (2021). "On the Linear Independence of Radicals". *Matematicheskoie prosviashchenie*, 28.
- Kanunnikov, Andrey & Vorobiov, Ivan. (2021). "Linear Independence of Radicals". *Kvant*, 3.

STRENGTHS

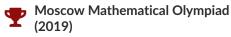
Python C++ C# LATEX

Monte Carlo Methods Mathematical Finance

Classic ML Models Deep Generative Models

Reinforcement Learning a bit of NLP

OLYMPIADS



Winner

Tournament of Towns (2019)
2nd degree prize-winner

Russian Olympiad in Mathematics (2018)

Certificate of Appreciation (1 point lower than prize-winner)

LANGUAGES

Russian

English

M.Sc. in Mathematics

Higher School of Economics

June 2026 (expected)

EDUCATION

B.Sc. in Mathematics
Higher School of Economics

☐ June 2024

Graduate

Yandex School of Data Analysis

☐ June 2025

Summer School "Modern Mathematics" (2018-19)
Student

Combinatorics and Algorithms (2017-21)

Student & Assistant