KIRILL ZAKHAROV

Applied Mathematician & Quantitative Researcher

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EXPERIENCE

- Kaggle competitions

SKILLS

- Modelling of Stochastic Differential Equations
- Pricing Derivatives
- Programming languages: Python, Wolfram Mathematica, C
- Python libraries: numpy, pandas, scipy, sklearn, statsmodels, torch, fbprophet
- Building physical and economic models
- Forecasting Models by Time Series
- Basic SQL
- Latex, Word, Excel, Access, Power Point

EDUCATION

B.S. in Applied Mathematics and Informatics

SPbSUE

Sept 2018 – June 2022

M.S. in Financial Technologies of Big Data

ITMO

Sept 2022 – June 2024

GRADUATE WORK

Generalization of the Bates model by stochastic correlation and stochastic interest rate

Found the exact solution by characteristic function of the affine jump diffusion system of stochastic differential equations and applied by Fourier transform to pricing European options. Found almost-exact solution under Q-measure. Applied measure transform Q->T and found almost exact-solution under T-measure.

COURSES

- Pricing Options with Mathematical Models, Caltech - Coursera, 2022
- Stochastic Processes, HSE - Coursera, 2022

COMPETITIONS

- 1th place – ITMO HACK FinTech case, 2022
- 5th place – Rosneft Hackathon, 2022
- 3th place – GPN CUP Data Science, 2021
- top 30% – Pet Finder, Kaggle, 2020

LANGUAGES

Russia	●●●●●
English	●●●●○