# Stanislav Khrapov

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Personal Statement Stanislav Khrapov is a full stack Data Scientist with several years of experience in agile environment, advanced academic background, as well as strong technical and communication skills.

Professional Experience Chintai, Frankfurt am Main, Germany

Senior Data Scientist

July 2022 - present

Email: khrapovs@gmail.com

Web: khrapovs.github.io

- Developed trade surveillance system based on unsupervised time series classification machine learning models. Built realistic exchange market simulation with heterogeneous traders. Wrote and open sources fast Python-based order book matching engine (OrderBookMatchingEngine). Designed a fully automated and reproducible pipeline to simulate market data, train and evaluate ML models catching illegal trading behaviour.
- Built a GitHub actions based CI/CD pipelines to release Node.js web applications interacting with the blockchain, check code quality, run unit and integration tests, search for code vulnerabilities, deploy to Kubernetes cluster running in the cloud. Organized processes across the company to streamline and speed up development and release activities starting from a PR and finishing with deployment to the production environment.
- Implemented Infrastructure as a Code management of GitHub assets using Pulumi.
- Participated in building TypeScript testing framework for Blockchain smart contacts.
- Mentored junior data science colleagues. Organized technical workshop with a purpose of active exchange of ideas and latest developments in IT.

# DB Schenker, Frankfurt am Main, Germany

Data Scientist

April 2018 - June 2022

- Designed and implemented custom time series models for forecasting of market freight prices and volumes, company internal financial indicators (EBIT, revenue, receivables, payables, etc.) to facilitate data-driven pricing decisions and liquidity planning.
- Designed and implemented recommendation system to digitize and automate ground trasportation auctions in the carrier-dispatcher communication platform.
- End-to-end ML cycle including data ingestion, processing, training, forecasting, evaluation, monitoring, orchestration, and delivery software.
- Wrote software packages for automated model evaluation, comparison, and reporting.
- Produced sophisticated static (Matplotlib, Seaborn) and dynamic (Dash, Bokeh) visualizations for presentation to internal business clients.
- Worked in agile environment as a lead data scientist, scrum master, and product owner.
   Coordinated work of data scientists, data engineers, DevOps, business consultants. Mentored trainees and junior team members.
- Designed and performed comprehensive company-wide workshops and multi-day trainings on machine learning for audiences of up to 150 people across diverse departments, both online and offline, with topics ranging from basics up to advanced hands-on instruction.

#### New Economic School, Moscow, Russia

Assistant Professor of Finance

Sep 2011 - Aug 2018

• Research: Conducted research independently as well as with co-authors in the fields of financial econometrics, option pricing, volatility modelling.

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Searched and surveyed all relevant literature on the subject. Collected, cleaned, and analyzed complex data from such sources as OptionMetrics, CRSP, TAQ, Compustat, Quandl. Collected unstructured data using web parsing methods and regular expressions. Performed Monte Carlo experiments for model selection purposes.

Advanced knowledge of parametric and non-parametric estimation methods of non-linear models

including MLE, GMM. Implemented several models and estimation methods as Python modules publicly available from GitHub repository.

Presented at major international economics, finance, and econometrics conferences.

- Teaching: Intermediate Econometrics, Advanced Econometrics, Financial Econometrics, Data Analysis in Python. 10–50 students in each class.
- Supervision: 4–8 master and bachelor students each year.

## SAS Institute, Cary, NC, USA

Summer intern May 2007 – Aug 2010

Programmed C module for estimation of GEE type models

Wrote examples of usage of new Copula procedure

Participated in writing of future publication "SAS/ETS User's Guide"

Added examples of usage and edited manuals for SAS/ETS procedures

### University of North Carolina, Chapel Hill, NC, USA

Teaching/Research assistant

Aug 2007 – May 2011

Teaching: Recitations in graduate classes: Intro to Probability Theory, Applied Econometrics, Advanced Econometrics.

# Oregon State University, Corvallis, OR, USA

Teaching assistant

Sep 2004 - Jul 2006

Teaching: Graduate econometrics recitations. Graded undergraduate courses in economics.

# United Nations, New York, NY, USA

Summer intern

Jun 2005 - Sep 2005

Improved annual statistical report on contributions and expenditures of member countries.

### EDUCATION

### University of North Carolina, Chapel Hill, NC, USA

PhD in Economics (major in Financial Econometrics)

Sep 2006 - Jun 2011

### Oregon State University, Corvallis, OR, USA

MA in Economics (major in Econometrics)

Sep 2004 – Jun 2006

### Novosibirsk State University, Novosibirsk, Russia

BA, MA in Economics

Sep 1998 – Jun 2004

### SKILLS

Operating systems: Linux, MacOSX, Windows

Programming languages: Python, SQL, SAS, C/C++, TypeScript

Visualization: StreamLit, Dash, Bokeh, Matplotlib, Seaborn

Orchestration: Argo, Airflow, Pachyderm Infrastructure: Kubernetes, Helm, Pulumi Monitoring: Prometheus/Grafana, ELK stack ML software: Dask, SciKit, DVC, Docker

Web: Flask, FastAPI

Cloud platforms: AWS, Azure

Git: GitHub, GitLab

Languages: English (fluent), German (B2), Russian (native)