

Researcher and Computer Science student at Tsinghua University. Leveraging 3+ years of Machine Learning experience, including 2.5 years as a Data Scientist at Russia's two biggest banks, to solve complex business and research problems using AI tools

### EXPERIENCE

#### **Tsinghua University - ML-Researcher (Multimodal AI & Multi-Agent Systems)** Sep 2024 — Present

- Created an MVP of a multi-agent system that automatically generates the documentation of an arbitrary GitHub repository
- Enhance the success rate and reduce the dependence on human feedback in multi-agent systems by leveraging multimodal information processing tools.

#### **VTB Bank - Data Scientist (NLP & Time Series)** Sep 2023 — Aug 2024

- Created a pipeline for clustering and hierarchical classification of text requests received by technical support. The approach significantly reduces the average processing time of a request
- Designed an approach to assessing the anomaly of observation on time series. The method detects and prevents potential anomalies in information systems
- Created a time series classifier and integrated it with other tasks (forecasting / anomaly detection)

#### **Sberbank - Data Scientist (AI for B2B & RecSys)** Mar 2022 — Sep 2023

- Provided the first solution for forecasting demand for sausage factory products. The client called the results phenomenal, and began to use them to estimate the volume of production and supply of goods
- Fully responsible for around 15 projects for clothing stores, supermarkets, grocery and pet stores. Helped clients evaluate the potential of existing outlets, as well as find the most promising and profitable locations for opening new ones
- Analyzed the pairwise interactions of grocery products, and proposed a new approach to personalize recommendations

### SKILLS

- **Frameworks & Languages:** Python, PyTorch, Hugging Face Transformers, LangChain, AutoGen, spaCy, NLTK, scikit-learn, CatBoost, LightGBM, numpy, pandas, matplotlib, seaborn, AutoML, PySpark, Git, Docker, SQL, Bash, Hadoop, ~~TeX~~
- **AI-Domain Expertise:** NLP, LLM, Multimodal AI, Multi-Agent Systems, Transformer Architectures, LLM Fine-Tuning, Time Series Analysis (forecasting, anomaly detection), Econometrics, CV, Data Analysis, Prompt Engineering
- **Communication:** English (fluent), Russian (native), Chinese (beginner)

### RESEARCH & PROJECTS

#### **Pet Projects**

- Studied and applied modern NLP architectures and tooling—from foundational embeddings to transformer-based models like BERT and GPT. Used methodologies like fine-tuning and prompt engineering to maximize task performance
- Developed multivariate time series forecasting models—including CatBoost, Prophet, LSTM, Seq2Seq, Transformer, and AutoML—on projects involving oil temperature and property sales data, to compare classical and deep learning approaches
- Took part in a Kaggle Clicks prediction competition. Ranked top 10%
- Discussed the limitations of the Black-Scholes model, and applied Machine Learning methods to predict the option prices

#### **Research**

- [Participated](#) in a large-scale conference by Russian Open Data Science community. Topic: Anomaly scoring for preventive detection of failures in information systems
- Co-author of the [paper](#) about building Voice Cloning TTS-System on synthetic data (will be published in Summer 2025)
- Co-author of the [Methodological approaches to the comparative analysis of tax competitiveness of regions](#). Became a prize winner of the research papers competition Vysshiiy Pilotazh by HSE University
- Presented 'Place of tax calculations in ensuring the economic security of the organization' at the student research conference

### EDUCATION

#### **Tsinghua University - Master in Advanced Computing** Sep 2024 - Jun 2026

- Do research under the supervision of [THUIAR](#) and [THUNLP](#) labs. Topics: Multimodal AI, Multi-Agent Systems, NLP, LLMs
- Relevant courses: NLP, Web Information Retrieval, Time Series Intelligence, Machine Learning, Reading and Writing Technical Papers, Combinatorics and Algorithms, Computer Networks, Chinese

#### **HSE University - Bachelor of Economics (Machine Learning & AI in Finance)** Sep 2020 - Jun 2024

- Teaching assistant for the Machine Learning in Macroeconomics course for graduate students
- Researcher at the Laboratory of Stochastic Analysis and its Applications. Topics: option price modeling using AI, neural networks
- Relevant courses: Deep Learning, NLP, Large-Scale Machine Learning, Machine Learning 1, Machine Learning 2, Data Analysis in Python, Probability Theory and Statistics, Stochastic Models, Econometrics, Financial Economics, Financial Markets