✉ andrewbeliaev2164@gmail.com

⌨ github.com/andreibeliaev

in linkedin.com/in/andreibeliaev

ANDREI BELIAEV
🌐 andreibeliaev.github.io

+1 (217) 419 9945 ☎

Urbana-Champaign, Illinois ⚲

t.me/thelutshe ✈

SUMMARY

ML Engineer and **Data Scientist** with 2+ years of experience across analytics, building agentic AI systems, computer vision workflows, and full stack applications. Developed a natural-language data analysis and ingestion system, raised fraud-workflow automation from 45% to 60%, increased product quality, and contributed to 1.7M USD in annual savings.

EXPERIENCE

Epivara, Inc., BioTech   Champaign, IL
AI/ML Software Engineer   *May 2025 – Present*

- Adapting foundational computer vision models to support analysis and interactive annotation of reproductive tissue samples, training on the NCSA Delta AI cluster.
- Built an AI powered full stack conversational data platform that connects to the databases, allowing researchers to generate analytical reports, create visualizations, and run statistical analysis using natural language.
- Integrated an LLM-driven assisted data ingestion workflow that parses, validates, and prepares uploaded data for approved insertion into the research database, bringing ingestion time down from hours to minutes.
- Conducted statistical study design ensuring the most powerful and appropriate methods are used to reduce costs, sample size, and generate reliable statistics.

Tinkoff, FinTech   Moscow, Russia
Data Analyst (Compliance)   *Feb 2022 – Oct 2022*

- Contributed to feature development for a new Anti Money Laundering model, which increased the share of fully automated task resolutions from 45% to 60% and reduced annual operational and other costs by $1.7 million.
- Delivered insights and identified issues by creating dashboards in Tableau and aggregating data using SQL, Python, and Spark, enhancing analysis of financial fraud and compliance with Federal Law and saving 1000 hours annually.

Tinkoff, FinTech   Moscow, Russia
Data Analyst (Insurance)   *Mar 2021 – Feb 2022*

- Created a system of 25+ metrics to measure UX, evaluate system robustness, and assess customer service by leveraging SQL, Python, and Spark to aggregate front end and back end logs alongside table data.
- Collaborated with business and software teams to address product issues and established an iterative analysis and quality improvement process, increasing the product quality metric by 18% and saving $60k monthly.
- Prepared datasets for ML team to enable churn prediction and proactive user engagement.
- Designed and conducted an A/B test to evaluate the impact on conversion rates.

PROJECTS

Entropy aware sampling in vLLM   [Link]

- Built an adaptive token selection mechanism for vLLM using GPU batched lookahead to control generation diversity by dynamically penalizing tokens with high entropy reduction.
- Tracked more than 30 metrics (self BLEU, perplexity, entropy dynamics) via Weights & Biases.

Energy Based Transformers   [Link]

- Performed an ablation study of MCMC sampling strategies to improve performance and scaling.

Protecting Images from Generative AI Editing   [Link]

- Implemented a semantic attack using the cross attention layers of the U Net to make images more resistant to editing at the James M. Rehg lab, UIUC.

Real Time Trade Mirroring System

- Developed a real time futures trade mirroring service using WebSockets and async Python, replicating orders and state updates between accounts with robust synchronization and failure handling, achieving 56 ms latency.

EDUCATION

University of Illinois Urbana–Champaign   Champaign, IL
Master's in Computer Science | GPA 3.8 / 4   Aug 2024 – May 2026

Bauman Moscow State Technical University   Moscow, Russia
Specialist in Autonomous Informational and Control Systems | GPA 4.7 / 5   Sep 2016 – Jun 2022

SKILLS

Competencies: ML, deep learning, LLMs, computer vision, statistical modeling, A/B testing, full stack development, HPC
Programming Languages: Python, R, C++, Java, TypeScript, SQL, MATLAB
Tools & Frameworks: PyTorch, LangGraph, vLLM, AWS, Docker, React, Zustand, Tableau, Grafana, PySpark, Neo4j, Wandb.ai