

Industry: Data & AI Leader launching AI/ML solutions globally across industries (10 years+)
Research: Lancet Author, Kaggle Top 14 global ranking, APMO medalist, ongoing PhD at MBZUAI
Society: Launched largest AI Community and first AI Olympiad in Central Asia, IOAI Scientific Committee Member

INDUSTRY EXPERIENCE

Careem (Dubai, UAE), Senior Machine Learning Engineer March, 2023 - December, 2024

Super app with operations in over 70 cities, covering 10 countries across the Middle East, Africa, and South Asia

- Led the development of **Matching and ETA prediction systems** for food and grocery delivery
 - Launched **priority-based dispatching** reducing delivery time for clients by 2% and courier time spent by 2.5%. Achieved by modifying the Hungarian Algorithm's cost matrix construction stage and building the matching simulator replicating the entire matching backend
 - Proactively identified a **Fake GPS spoofing** problem that negatively affected delivery duration and couriers' experience. Designed the real-time algorithm to identify them resulting in a 93% decrease in affected orders (from 218k to 15k). This feature was well noted by the CEO and escalated to the VP of Ops
 - Designed a **Stage Splitter system** to address uncertainty during ETA prediction by segmenting delivery trips by couriers' GPS signals. Improved ETA accuracy by 10% by training similarity-based models tailored to each stage
- Led the **Courier Operating Model Transformation** from a decentralized network to an intra-zone system with stable shifts for couriers
 - Built an **end-to-end planning system**, including zone definition, accurate demand prediction, supply planning, and shift optimization
 - Applied to 35% of the fleet transformation improved the marketplace balance, resulting in \$1.5M in annual savings,

Checklens GmbH (Salzburg, Austria), Senior AI Researcher March, 2021 - August, 2022

AI startup that uses computer vision for automation checkout for retail companies including IKEA, Netto, Lidl, etc

- Led the development of **Checkscan**, an AI-powered fraud prevention system deployed in IKEA and Netto
- As part of small R&D team I owned the **entire AI solution lifecycle**: from MVP to production deployment
 - Trained object detection and vectorization models, enabling real-time product recognition (15,000+ items)
 - Suggested innovative tracking approach: a two-stage tracking framework that combines a gradient-boosting method with a Graph Neural Network (GNN), leveraging geometric, appearance, and interaction features for robust tracking
 - Automated video ingestion, dataset and annotation task creation, model zoo fine-tuning, model conversion, and deployment enabling fast, efficient rollout in new stores and continuous updates across existing locations

Harrison.ai (Sydney, Australia), Senior AI Researcher March, 2020 - January, 2021

Healthcare AI startup that uses computer vision and deep learning to create the next generation of X-ray imaging

- Trained the model for the **Annalise CXR solution**, enabling the detection of over 120 chest X-ray pathologies:
 - Designed and trained a combined multi-task AI model integrating attribute detection, classification, and segmentation capabilities
 - Leveraging key innovations from my winning Pneumothorax Segmentation challenge solution, I introduced multiple advanced modeling and optimization strategies that significantly boosted accuracy and efficiency throughout the entire training pipeline.
- Integrated into 250+ Australian radiology clinics, the system has improved diagnostic accuracy by 45% and reduced radiologist workload by 20% of cases through automated reporting.
- Co-authored research published in The Lancet Digital Health demonstrating significant improvement in radiologists' diagnostic accuracy across diverse clinical findings.

BTS Digital (Astana, Kazakhstan), Head of Artificial Intelligence June, 2018 - March, 2020

Digital innovation arm of Eurasian Resources Group (natural resources holding, 75,000+ employees)

- Established the company's ML/AI function, driving innovative projects:
 - **Digital ID:** facial recognition system for identity verification with anti-spoofing and 2M+ verifications/month
 - **ASR service:** electronic government services call center automation (supporting mixed bilingual dialogues)
 - **Ainews:** AI-driven news aggregation platform with recommendations and duplicate removal
- Built the leading AI team in the region, defining vision and roadmap for strategic AI projects, and driving AI talent development through industry-academia collaboration, organizing Kazakhstan's first AI course and open research seminars

Past Experience Highlights

June, 2014 - June, 2018

- **Kazpost (Astana):** Implemented an Integrated Planning System, setting sales targets and compensation plans across 3,000+ branches, boosting annual revenue by 8%, [KZT 1.6B](#), [\\$5M](#). Achieved through time series forecast and performance-based branch clustering
- **Esculabs (Astana):** Created a computer vision-based quality control system for verifying fiber scanning (ultrasound and MRI) for the diagnosis and treatment monitoring of Chronic Hepatitis C
- **Yandex (Moscow):** Data Science internship in the Safe Search Department.

ACADEMY AND EDUCATION

PhD in Machine Learning

August, 2025 - current

MBZUAI (Abu Dhabi, United Arab Emirates)

The world's first university dedicated to AI, ranked top-10 globally in AI, CV, and NLP (QS 2025)

- **Research focus:** Applications of AI in financial markets (supervised by [Prof. Steve Liu](#))

Yandex School of Data Analysis (Moscow, Russia)

September, 2016 - May, 2018

Two-year data science and ML program with 5.4% admission rate and rigorous math olympiad-style entrance exam

- **Relevant coursework:** Mathematical Statistics · Machine Learning I-II · Bayesian ML methods · Large-scale ML Deep Learning · Reinforcement Learning · Natural Language Processing · Algorithms & Data Structures · Python

MSc. in Applied Mathematics and Computer Science

September, 2009 - June, 2014

Moscow State University (Moscow, Russia)

Top 50 in 2019 QS World University Rankings in Mathematics and Computer Science

PUBLICATIONS AND AWARDS

• **Publications:**

- [Published](#) in **Lancet** (IF:98.4, Q1, first in the "Medicine, General & Internal" category):
 - Effect of a Comprehensive Deep-Learning Model on the Accuracy of Chest X-Ray Interpretation by Radiologists: a Retrospective, Multireader Multicase Study", Aug. 2021

• **Conference Presentations:**

- **Invited Speaker, NeurIPS 2025** Competition Track and Foundation Models for the Brain and Body Workshop, San Diego, CA.
 - 1st place in the [NeurIPS EEG Foundation Challenge](#) (by combined 2-challenges metric)
- **Invited Speaker**, Conference on Machine Intelligence in Medical Imaging (C-MIMI 2019), Austin, TX.
 - Presented results from the [SIIM-ACR Pneumothorax Segmentation Challenge](#), following a 1st-place as a one-person team

• **Awards and Achievements**

- **Kaggle** Competitions Master - **Ranked #14** of 200,000 participants; 3 Gold (top 0.1%) and 6 Silver medals.
- 1st Place, [SIIM-ACR Pneumothorax Segmentation Challenge](#) (Radiographic Image Segmentation).
- 1st Place, [EEG Foundation Challenge](#) (NeurIPS 2025 Competition Track).
- Bronze Medal in the [Asian Pacific Mathematics Olympiad](#)

COMMUNITY SERVICE

DSMLKZ Community, Community Founder

September, 2017 - present

- Founded and leading Kazakhstan's largest [AI & ML community](#), fostering knowledge sharing and professional growth in AI/ML.
- DSML.KZ actively shapes the AI ecosystem in Central Asia through a thriving network of community channels, media platforms, and [career resources](#).
- Organized the first national AI olympiad for high school students in Kazakhstan, leading to building the national team and [4th place in national standings on IOAI 2025](#) (3 gold, 1 silver, 3 bronze medals)

IOAI - International Olympiad in AI, International Scientific Committee

November, 2025 - present

- Member of the International Scientific Committee of IOAI, the largest AI competition for school students.
- Lead contributions on problem development, validation and scientific integrity; scoring methodology, results verification, and score finalization in coordination with the Jury/ISC.

TECHNOLOGIES

- Python: machine learning, optimization and deep learning frameworks for different modalities including images, text, time series and audio signals.