

Sergei Bogdanov

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EDUCATION

École Polytechnique, admitted to the 2nd year directly

Master's of Artificial Intelligence and Advanced Visual Computing

Sep. 2022 – Dec. 2023

Moscow Institute of Physics and Technology, QS EECA top 10

GPA: 4.77/5

Bachelor of Applied Mathematics and Computer Science, Minor in Machine Learning

Sep. 2018 – Aug 2022

Thesis: *Reliable and Efficient Face Identification during COVID-19*

Yandex School of Data Analysis

GPA: 5/5

Computer Vision, 3d Computer Vision, Natural Language Processing,

Sep. 2020 – Aug 2022

ML for Audio and Speech, Recommendation Systems, Reinforcement Learning, Python, GO

WORK EXPERIENCE

Machine Learning Researcher (CV + NLP)

Oct. 2020 – September 2022

Tinkoff, Face biometric department

- NLP: Solved Classification and Metric Learning problems.
- CV: Solved Classification, Regression, Object Detection, Object Recognition, Model Compression, Segmentation, Image Reconstruction (AE, VAE), Best Frame Selection problems.
- Increased Face Detection **MAP from 0.68 to 0.82** on Masked Faces.
- Decreased Face Recognition RAM usage (now **3 times smaller**) without quality decrease.
- Increased Face Identification **TPR from 0.09 to 0.99** with FPR=1e-3 on Masked Faces.
- Increased Face Identification **TPR from 0.94 to 0.96** with FPR=1e-7 on company's private dataset.

Machine Learning Engineer (ML + NLP)

Aug. 2021 – Feb. 2022, May 2022 – August 2022

AgBlox, Silicon Valley startup, remote

- Developed **Question Answering System** capable of handling **30 scenarios** & integrated it with knowledge db.
- Developed ML algorithm & infrastructure for Absolute Daily Searches Estimation for the given topic.
- Used Bayesian ML to **reduce variance by a factor of 3** and add **confidence interval** for the prediction.
- **In charge of Design, BackEnd, ML & DevOps.**
- Deployed projects on **AWS** and developed APIs using **EC2, lambda, RDS, S3, API Gateway, VPC, ECS.**

Python + Go Developer

Dec. 2021 – May 2022

Tinkoff, Face biometric department

- Developed quality assurance concurrent automatic tests of our products for dev & prod environments.
- Responsible for gRPC API expansion and Machine Learning models deployment.
- Stack: Go, Python, Docker, Kubernetes, Redis, PostgreSQL, S3.

Machine Learning Researcher (NLP, Natural Language Processing)

Jul. 2020 – Sep. 2020

Jetbrains, IntelliJ

- Developed model for **Method name generation** task which is comparable to **SOTA**
- Developed model for Code-SearchNet task: **Top-20% out of all competition participants.**

OLYMPIADS

- **BMSTU Informatics Olympiad** *Absolute winner.*
- **ITMO Informatics Olympiad** *Double Awardee.* Top-3%
- **Moscow State University Math Olympiad** *Awardee.* Top-5%

ACTIVITIES AND LEADERSHIP

1st place at **Agrocode Hack 2022** as a team of 3 people. Surpassing teams with up to 5 members.

4st place out of 150 at **More Tech Hackathon 2022** as a team of 3 people. Surpassing teams with up to 5 members.

Vice President of the University's **English speaking club.**

Mentor intern Machine Learning Engineer at Tinkoff. The topic is model compression.

Gave a **talk** about my **University thesis.**

Recorded a **lecture** and a **seminar** about Computer Vision classification architectures and Neural Architecture Search.