



ALEXANDER NIKULIN

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EXPERIENCE

Tinkoff

Research Scientist

Sep 2022 – present

Saint Petersburg, Russia

- Participated at 5 workshop and 4 full papers accepted to the A* conferences (ICML, ICLR, NeurIPS).
- First-author paper on SAC-RND algorithm (accepted to the ICML 2023) was covered by all major Russian news media.
- Main developer and maintainer of the CORL library, which currently has 800+ stars on github and has become one of the most popular libraries for offline reinforcement learning. Technical paper describing the main results and philosophy of the library has been accepted at NeurIPS 2023.
- Actively attended meetups and conferences, presenting research accomplishments. Presented CORL library at PyCon Russia 2023 (rated top 8 out of 25+ by the attendees). Presented CORL & SAC-RND at the meetups organized by Tinkoff. Gave more than 8 talks about my research for university students from three cities (Moscow, Saint Petersburg, Kazan). Organized multiple internal research reading clubs for the colleagues.

Tinkoff

Research Scientist Intern

December 2021 – Sep 2022

Saint Petersburg, Russia

- Conducted the research on the offline reinforcement learning under the supervision of [Vladislav Kurenkov](#). Publicly [presented](#) the results of the internship at the Innopolis University.
- Proposed and verified 5+ research proposals during the internship. One has been accepted into the 3rd Offline Reinforcement Learning Workshop at NeurIPS 2022.

Hamburg University of Technology

Research Assistant

March 2021 – Sep 2021

Saint Petersburg, Russia

- Developed most of the infrastructure for conducting experiments and training in PyTorch. Designed and performed the main experiments. Achieved an average threefold improvement over baselines on a variety of metrics. Results were published in the [Photonics and Nanostructures](#) journal.

JetBrains Research

Research Assistant

March 2021 – December 2021

Saint Petersburg, Russia

- Worked on a **Improving Upside Down RL** coursework under supervision of [Oleg Svidchenko](#). Developed most of the infrastructure for conducting experiments and training in PyTorch. Tested various modifications of the Soft Actor-Critic algorithm in the Upside Down RL setting.
- Participated in the MineRL 2021 competition, taking 5th place as well as receiving a \$200 award for the community support nomination. As a result, our approach was described in the [paper](#) accepted to NeurIPS 2021.

VK

Machine Learning Engineer Intern

July 2019 – Sep 2019

Saint Petersburg, Russia

- Wrote a pipeline for the training of graph embeddings using ALS (on millions of nodes) and top-n recommendations of the most similar users using distributed kNN search. The results were tested with an A/B test.
- For the correct sampling of the graph and the tuning of the hyperparameters, also wrote my own [implementation of the Metropolis-Hastings](#) random walk on pyspark.

SELECTED PUBLICATIONS

Anti-Exploration by Random Network Distillation

[Alexander Nikulin](#), [Vladislav Kurenkov](#), [Denis Tarasov](#), [Sergey Kolesnikov](#)

ICML, 2023

Poster

Revisiting the Minimalist Approach to Offline Reinforcement Learning

[Denis Tarasov](#), [Vladislav Kurenkov](#), [Alexander Nikulin](#), [Sergey Kolesnikov](#)

NeurIPS, 2023

Poster

CORL: Research-oriented Deep Offline Reinforcement Learning Library

[Denis Tarasov](#), [Alexander Nikulin](#), [Dmitry Akimov](#), [Vladislav Kurenkov](#), [Sergey Kolesnikov](#)

NeurIPS, 2023

Poster

Katakomba: Tools and Benchmarks for Data-Driven NetHack

[Vladislav Kurenkov](#), [Alexander Nikulin](#), [Denis Tarasov](#), [Sergey Kolesnikov](#)

NeurIPS, 2023

Poster

Q-Ensemble for Offline RL: Don't Scale the Ensemble, Scale the Batch Size

[Alexander Nikulin](#), [Vladislav Kurenkov](#), [Denis Tarasov](#), [Dmitry Akimov](#), [Sergey Kolesnikov](#)

NeurIPS, 2022

Workshop

EDUCATION

Moscow Institute of Physics and Technology

PhD in Computer Science

Sep 2023 – present

Moscow, Russia

National Research University Higher School of Economics

Master of Science in Computer Science

Sep 2020 – May 2023

Saint Petersburg, Russia

National Research University Higher School of Economics

Bachelor of Science in Sociology

Sep 2016 – May 2020

Saint Petersburg, Russia