# Nikita Kostin

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#### Profile

Highly initiative and self-motivated machine learning engineer with 6+ years of academic and industry experience. Proficient in Python and has solid knowledge of machine learning algorithms. Proven record of contributions to software development projects from top tech companies. Demonstrated teamwork and supervision skills in several academic and industrial projects. Have legal rights to work in EU.

#### SKILLS

Python, Jupyter Notebooks, C++, PyTorch, LLMs, Pandas, SQL, ROS2, Git, Docker, LaTex. Software tools:

English (C1), Swedish (B1), German (A2), Finnish (A1), Russian (native). Languages:

### Work experience

Aalto University Espoo, Finland Research Scientist Nov 2021 - Present

• Research in safe and robust reinforcement learning algorithms for robotics.

- Developed uncertainty-aware safe exploration for reinforcement learning using a Bayesian cost model, making the agent safely operate in complex, unknown environments (under review).
- Developed robust reinforcement learning algorithm for fast adaptation to unseen dynamical changes using adaptive control (under review).
- Developing natural language-constrained safe reinforcement learning using LLM and VLM experience labeling.

### Huawei Research Center

Moscow, Russia

Machine Learning Engineer

Sep 2019 - Oct 2021

- Research and development of deep learning algorithms for image enhancement and super-resolution.
- Developed an algorithm for demosaicing of underscreen camera photos that improved the quality by 25%.
- Developed a super-resolution algorithm based on Normalizing Flows that improved the quality of the underscreen camera photos by 13%.

#### Samsung R&D Institute

Machine Learning Engineer

Moscow, Russia Jun 2018 - Aug 2019

- Research and development of automation algorithms for cloud and mobile applications.
- Developed OpenStack system installation automation, accelerated system's deployment to new locations.
- Developed AI-based Mobile Testing Automation for Android using Reinforcement Learning, which accelerated new features testing by 50%.

#### **EDUCATION**

#### Aalto University Espoo, Finland PhD in Electrical Engineering, GPA: 4.52, Courses: Deep Learning, Bayesian Statistics Jan 2022 - Present Lomonosov Moscow State University Moscow, Russia M.Sc in Applied Mathematics, GPA: 4.05, Courses: Control Engineering, Optimal Control Sep 2018 - May 2020 Lomonosov Moscow State University Moscow, Russia B.Sc in Physics, GPA: 4.51, Courses: Calculus, Linear Algebra, Physics, C++ Sep 2014 - May 2018 Certificates

- Generative AI with Large Language Models, AWS, Jul 2024.
- Databases and SQL for Data Science with Python, IBM, Dec 2024.

Organized by Yandex, it presented the latest technologies behind YaGPT.

#### Conferences and Workshops

Teaching assistant at ProbAI

Lead TA on Normalizing Flows section of Nordic Probabilistic AI summer school.	$\mathrm{Jun}\ 2022$
Teaching assistant on RL course	Helsinki, Finland
TA and lecturer on the Reinforcement Learning course.	Sep 2022 - Present
International Workshop of Intelligent Autonomous Learning Systems	Kleinwalsertal, Austria
Organized by the Intelligent Autonomous Systems lab from TU Darmstadt.	Aug 2023
Generative Modeling Summit	Belgrade, Serbia

## **ELLIS Robust Machine Learning Workshop**

Helsinki, Finland

Helsinki, Finland

Workshop covered important topics of robustness of ML, LLMs and Human-Computer Interaction.

Jun 2024

Sep 2023