

Education

University of Oxford

OXFORD, UNITED KINGDOM

CDT/DPhil in Autonomous Intelligent Machines and Systems

2018 – 2023

Working on Reinforcement Learning under the supervision of Dr. Shimon Whiteson.

RWTH Aachen University

BONN-AACHEN, GERMANY

Master degree in Media Informatics (top 5% of the class, Dean's list)

2015 – 2017

Focusing on Machine Learning in Computer Vision, thesis on Reinforcement Learning.

Moscow State University

MOSCOW, RUSSIA

Bachelor of Science, faculty of Computational Mathematics and Cybernetics

2012 – 2015

As a thesis created the software package that is currently used at the Bioinformatics lab at the University.

Moscow State Institute of International Relations

MOSCOW, RUSSIA

Bachelor of Art, faculty of Economics (IT in international Business)

2008 – 2012

Focusing on Econometrics. Graduated with distinction.

Professional Experience

Facebook AI Research

LONDON, UK

Graduate Research Intern

September 2020 – December 2020

NVIDIA

SANTA CLARA, USA

Graduate Research Intern

June 2019 – September 2019

Part of the Applied Deep Learning Research team working on Reinforcement Learning for SAT solvers [6].

Latent Logic (former Morpheus Labs, acquired by Waymo)

OXFORD, UNITED KINGDOM

Junior Researcher

September 2017 – August 2018

Working on human behaviour modelling using Reinforcement Learning and Learning from Demonstration techniques. Development of the in-house learning library.

Microsoft Research

CAMBRIDGE, UNITED KINGDOM

Visiting student

Mar 2017 – May 2017

Working on Reinforcement learning part of my master thesis at Machine Intelligence and Perception Group with Sebastian Nowozin and Katja Hofmann. The project resulted in [1].

RWTH Computer Vision Group

AACHEN, GERMANY

Master student

Jan 2017 – Sep 2017

Human behaviour modelling in computer games domain. Co-supervision with Bastian Leibe and Sebastian Nowozin from Microsoft Research. <http://atarigrandchallenge.com/>

Student assistant

Oct 2015 – Dec 2016

Implementing the ROS node for head orientation prediction. Working on person re-identification project [2]. <https://github.com/VisualComputingInstitute/BiternionNets-ROS>

Terminal

MOSCOW, RUSSIA

Java EE Developer/Project Manager

Nov 2013 – Aug 2015

Leading a team of four people developing a warehouse management system from scratch (30 users).

CDC.ru

MOSCOW, RUSSIA

Android developer

May 2013 – Nov 2013

Member of a development team of a mobile app for a kind of ERP system. Completely refactored reports module and made a large amount of bug fixes.

Skills

Technical expertise: Python, Java SE/EE, Android development, GNU/Linux (10+ years of experience). Worked with Theano, Tensorflow, Chainer and Pytorch. Use Jupyter notebooks for visualisation. Experience with working via remote computing services as AWS or Azure.

Research interests: Reinforcement Learning for the environments with dynamic state and action spaces. Leveraging existing knowledge to help RL with sample efficiency (e.g. Learning from Demonstration).

Natural languages: Russian (*mother tongue*), English (*full professional proficiency*), German (*elementary proficiency*), French (*elementary proficiency*) and Mandarin Chinese (*beginner*).

Publications

- [1] [The Atari Grand Challenge Dataset](#), **Vitaly Kurin**, Sebastian Nowozin, Katja Hofmann, Lucas Beyer, and Bastian Leibe, arXiv preprint arXiv:1705.10998, 2017.
 - [2] [Towards a Principled Integration of Multi-Camera Re-Identification and Tracking through Optimal Bayes Filters](#), Lucas Beyer, Stefan Breuers, **Vitaly Kurin**, Bastian Leibe, CVPR 2017 ReID and MTMCT workshop.
 - [3] [Learning from Demonstration in the Wild](#), Feryal Behbahani, Kyriacos Shiarlis, Xi Chen, **Vitaly Kurin**, Sudhanshu Kasewa, Ciprian Stirbu, JoÃ£o Gomes, Supratik Paul, Frans A. Oliehoek, Joao Messias, Shimon Whiteson, ICRA 2019.
 - [4] [Fast Context Adaptation via Meta-Learning](#), Zintgraf, Luisa M., Kyriacos Shiarlis, **Vitaly Kurin**, Katja Hofmann, and Shimon Whiteson, International Conference on Machine Learning (ICML) 2019.
 - [5] [Fast Efficient Hyperparameter Tuning for Policy Gradients](#), Supratik Paul, **Vitaly Kurin**, Shimon Whiteson, NeurIPS 2019.
 - [6] [Deep Coordination Graphs](#), Wendelin Boehmer, **Vitaly Kurin**, Shimon Whiteson, ICML 2020.
 - [7] [Can Q-Learning with Graph Networks Learn a Generalizable Branching Heuristic for a SAT Solver?](#), **Vitaly Kurin**, Saad Godil, Shimon Whiteson, Bryan Catanzaro, NeurIPS 2020.
 - [8] [My Body is a Cage: the Role of Morphology in Graph-Based Incompatible Control](#), **Vitaly Kurin**, Maximilian Igl, Tim Rocktaeschel, Wendelin Boehmer, Shimon Whiteson, Arxiv preprint.
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Talks

1. "Learning from Demonstration" at Databeers Branded Edition with BBVA Data & Analytics, September 3rd 2018.
 2. "Graph Networks", at the Centre for Visual Information Technology (CVIT) at International Institute of Information Technology, Hyderabad, India, March 19th 2019.
 3. "Graph Networks", at the Robotics and Autonomous Systems CDT Conference 2019, Edinburgh, 3-4 June 2019.
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Teaching

1. [Machine Learning](#), University of Oxford, Michaelmas 2018, Marker.
 2. [Artificial Intelligence](#), University of Oxford, Hilary 2019, Marker.
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Student supervision

1. Jeffrey Mak, master thesis, 2019, co-supervision with Wendelin Boehmer
 2. Charles Blake, master thesis, 2020, co-supervision with Max Igl
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Conferences

1. [ICML 2019 Imitation, Intent, and Interaction \(I3\) workshop](#), reviewer.
 2. [Robotics and Autonomous Systems CDT Conference 2019](#), organiser, reviewer.
 3. [ICLR 2021](#), reviewer.
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Prizes and scholarships

- Samsung R&D Institute UK studentship, 2018-2023.
- NeurIPS 2019 Travel Award.