

VLADISLAV KURENKOV

v.kurenkov@innopolis.ru | Github: vkurenkov | +7 (926) 784-72-81

EDUCATION

Innopolis University
Bachelor of Science in Computer Science

Aug 2015 - Aug 2019
GPA: 3.56 (4.00 max)

RESEARCH EXPERIENCE

Mechatronics, Control, and Prototyping Lab (Innopolis University)
Junior Research Engineer

Jul 2019 - Present
Innopolis, Russia

- Organized and led an internship for 4 bachelor and 1 master students that resulted in
 - A prototype of Differentiable Tensegrity simulator
 - A framework for finding Deep Neural Networks based control policies using Taichi language
- Designed an algorithm for an utilization of hindsight information by Parameter Space Search algorithms based on Multiple Importance Sampling technique
- Conducted experiments on the application of Reinforcement Learning to the Tensegrity hopper control problem using Parameter Space Search algorithms and Domain Randomization
- Designed and developed a software module for modeling, simulation, and control of Tensegrity robots

Deep Learning Lab (VK)
Intern Research Engineer

Aug 2018 - Oct 2018
Saint Petersburg, Russia

- Assisted in enhancements of a technical support system, namely
 - Benchmarked Deep Semantic Similarity Model against classical similarity metrics for querying FAQ pages
 - Conducted multiple experiments to filter out open-domain or troll questions using deep learning based classifiers
 - Designed and implemented a system to generate relevant keywords for FAQ pages using deep learning based classifiers

Compilers Lab (Samsung R&D)
Intern Research Engineer

Jun 2017 - Aug 2017
Moscow, Russia

- Benchmarked various Cross-Project Defect Prediction methods based on Decision Trees and integrated them into a private code-quality platform

PUBLICATIONS

Differentiable Tensegrity Simulator

Vladislav Kurenkov, Hany Hamed, Sergei Savin

In Preparation

Learning Stabilizing Control Policies for a Tensegrity Hopper with Augmented Random Search

Vladislav Kurenkov, Hany Hamed, Sergei Savin

IEEE ICIEAM, 2020

Mathematical Modelling of Tensegrity Robots with Rigid Rods

Sergei Savin, Lyudmila Vorochayeva, Vladislav Kurenkov

Computer Research and Modeling, 2020

Task-Oriented Language Grounding for Language Input with Multiple Sub-Goals of Non-Linear Order

Vladislav Kurenkov, Bulat Maksudov, Adil Khan

EEML, 2020

TEACHING EXPERIENCE

Behavioural and Cognitive Robotics

Teaching Assistant

Innopolis University

Spring 2020

- Advised on research projects, helped students with technical and conceptual difficulties, prepared a docker environment for running learning algorithms and visualization

ADDITIONAL EDUCATION

Oxford Machine Learning Summer School

August, 2020

- The school lasted 7 days and covered the key topics in domains such as Bayesian ML, Computer Vision, NLP and reinforcement learning (as well as areas such as Causal ML, Topological ML, and Transfer Learning)

Eastern European Machine Learning Summer School

July, 2020

- This is a one-week summer school around core topics regarding machine learning and artificial intelligence, particularly, this year the focus was on the fundamentals of Deep Reinforcement Learning and Graph Neural Networks.

ACHIEVEMENTS

Ranked Top 1% (19/2187) in International Data Analysis Olympiad, 2019

Ranked Top 2% (24/1567) in International Data Analysis Olympiad, 2018

VOLUNTEERING

IEEE Conference "Nonlinearity, Information and Robotics"

December, 2020

Publication Chair

- Checked papers for plagiarism, designed and assembled the final proceedings (author index, table of contents, copyright page, etc.), assisted to authors with submission of final versions of their papers (copyright, proper template usage)

Winter School on Machine Learning in Robotics

December, 2020

Member of an Organizing Committee

- Helped to prepare lectures and seminars schedule, invited several speakers from Samsung R&D, Yandex, Bayes Group

3rd BRICS Conference on Mathematics

July, 2019

Volunteer

- Moderated paper presentation sessions (resolving technical difficulties, presenting speakers)
- Met the participants at the airport and organized transfer to the conference location

IT Nights

April, 2019

Member of a Program Committee

- Review and feedback loop for the lecturers (application of StyleGAN to T-Shirt Generation; Version Control for Machine Learning Experiments at Raiffeisenbank; Content verification using Machine Learning at Lamoda)
- Moderated the Q&A sessions of the assigned lectures

SELECTED REPOSITORIES

Task-Oriented Language Grounding for Multi-Goal Instructions

github.com/vkurenkov/language-grounding-multigoal

- Implemented Multi-Task Deep Q-Learning algorithm and its extensions (DQN, DDQN, PER, Gated-Attention) for a language grounding problem

Guided Evolutionary Strategies for Locomotion Environments

github.com/vkurenkov/bcr-project

- Implemented the Open-ES and Guided-ES from scratch using PyTorch and conducted multiple experiments on MuJoCo Locomotion Tasks

Cross-Entropy Method In Haskell

github.com/vkurenkov/cem-tetris

- Implemented the Cross-Entropy Method to solve the original Tetris game in Haskell

Imitation Learning for a Real-Time Online Game

github.com/vkurenkov/haxball-chameleon

- Implemented the Behavioral Clonning based on Gradient Boosting for a real-time soccer resembling online game