VLADISLAV KURENKOV

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EDUCATION

Innopolis University Aug 2015 - Aug 2019
Bachelor of Science in Computer Science *GPA: 3.56*
Major: Data Analysis
Thesis: Task-Oriented Language Grounding for Executing the Linguistic Instructions

RESEARCH EXPERIENCE

Mechatronics, Control and Prototyping Lab (Innopolis University) Jul 2019 - Present
Junior Research Engineer *Innopolis, Russia*

- Designed an algorithm for an utilization of hindsight information by parameter-space search algorithms (Evolutionary Strategies, Cross-Entropy Method, Augmented Random Search, etc.) based on multiple importance sampling technique
- Conducted experiments with 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 the modeling, simulation, and control of tensegrity robots
- Designed and implemented a framework that provides a unified interface for speech recognition, synthesis and semantic parsing of Russian language

Deep Learning Lab (VK) Aug 2018 - Oct 2018
Intern Research Engineer *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) Jun 2017 - Aug 2017
Intern Research Engineer *Moscow, Russia*

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

PUBLICATIONS

Mathematical Modelling of Tensegrity Robots with Rigid Rods
Sergei Savin, Lyudmila Vorochayeva, Vladislav Kurenkov *Computer Research and Modeling, 2020*

Learning Stabilizing Control Policies for a Tensegrity Hopper with Augmented Random Search
Vladislav Kurenkov, Hany Hamed, Sergei Savin *IEEE ICIEAM, 2020*

Task-Oriented Language Grounding for Language Input with Multiple Sub-Goals of Non-Linear Order
Vladislav Kurenkov, Bulat Maksudov, Adil Khan *arXiv, 2019*

Across-Sensor Feature Learning for Energy-efficient Activity Recognition on Mobile Devices
Yuriy Gavrilin, Adil Khan *IEEE IJCNN, 2019*

· Acknowledged for help with experimental setup and provision of extensive editorial notes

TEACHING EXPERIENCE

Teaching Assistant Innopolis University
Behavioural and Cognitive Robotics *Spring 2020*

· Containerized the course materials, answered questions, advised on research projects

ACHIEVEMENTS

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

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

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