

SERGEI VOLODIN

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EDUCATION

Moscow Institute of Physics and Technology, BSc
Department of Control and Applied Mathematics
Intellectual Systems and Data Analysis
GPA: 8.98/10

Sep 2012 – Jun 2017

RESEARCH INTERESTS

1. Artificial Intelligence, Machine Learning
2. Mathematical Optimization

RESEARCH EXPERIENCE

Skoltech, Center for Energy Systems
Research Intern

Sep 2016 – present
Moscow, Russia

- Designed and implemented the algorithm for cutting convex parts of the image of a quadratic map
- Examined the structure of the set of nonconvexities in Matlab

MIPT, chair of Data Analysis
Undergraduate student

Feb 2016 – Jul 2016
Moscow, Russia

- Compared machine learning algorithms for the ligand-receptor interaction problem
- Implemented Probabilistic Classifier Chains algorithm using scikit-learn library

MIPT, chair of Theoretical Mechanics
Technician

Oct 2012 – Feb 2013
Moscow, Russia

- Designed and implemented numerical simulations for Euler's rotation equations
- Checked soundness of the approximation using symbolic computations in Wolfram Mathematica

PUBLICATIONS

Volodin S., Popova M., Strijov V.. Probabilistic prediction of nuclear receptors biological activity. In the proceedings of ITaS, 2016

Petrov A., **Volodin S.** Janibekovs effect and the laws of mechanics. In Doklady Akademii Nauk, 2013

CONFERENCES

Information Technologies and Systems (Saint-Petersburg, Repino, 2016), *Speaker*

School "Control, Information, Optimization" (Saint-Petersburg, Repino, 2016), *Poster presenter*

SKILLS

Programming: C/C++, Python (numpy, scikit-learn), Matlab, Mathematica

Languages: Russian (native), English (B2)

SCHOLARSHIPS

Abramov Fund's scholarship for excellent grades (2014)

OLYMPIADS AND HACKATHONS

DeepHack.RL hackathon (Deep RL for Atari games), MIPT, Moscow, Russia, 2017. 4th place

DevCup software development competition, Moscow, Russia 2013, 2nd place

WORK EXPERIENCE

ITBrat

Software Engineer

Jul 2015 – Feb 2016

Moscow, Russia

- Developed High Frequency Trading (cross-border arbitrage) application in C++, from initial discussion with the team to deployment and supporting
- Added low-level networking to the project using Solarflare OpenOnload library and hardware
- Designed and supported the environment for the algorithm: build stage, version control, performance analysis using network dumps

EscapeControl

Software Engineer

Jul 2015 - Feb 2016

Moscow, Russia

- Created system architecture for the real-world escape room games
- Implemented the solution using C++ (Atmel AVR, Linux)
- Created a startup selling software & hardware framework for real-world escape games
- Managed a team of two web developers
- Ten solutions sold, currently running in different countries

PROJECTS

Quadcopter stabilization

- Developed an algorithm in C++ for stabilization of a quadcopter drones
- Conducted the analysis of launches to improve flying quality
- Results were published in the Habrahabr CS blog