

SERGEI VOLODIN

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LINKS

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EDUCATION

École Polytechnique Fédérale de Lausanne

MSc in Computer Science

Sep 2017 – Jun 2019

Lausanne, Switzerland

- School of Computer and Communication Sciences
- Relevant courses: Set theory, Machine Learning, Functional Programming (Scala), Software Engineering (Android, Scrum).

Moscow Institute of Physics and Technology

BSc in Applied Mathematics

Sep 2012 – Jun 2017

Moscow, Russia

- Department of Control and Applied Mathematics
- 🔗 Major in **Machine Learning**
- Relevant courses: Algorithms and Data Structures, Functional analysis, Random processes, Convex Optimization.
- GPA: 4.84/5.00

RESEARCH INTERESTS

1. Artificial Intelligence; Machine Learning; Reinforcement Learning
2. Mathematical Optimization

RESEARCH EXPERIENCE

EPFL, CHILI lab

Research Assistant

Sep 2017 – present

Lausanne, Switzerland

- Created a website collecting a dataset for French BHK test to help dysgraphic children
- Researched into ways of adding Augmented Reality to the Cellulo project

Skoltech, Center for Energy Systems

Research Intern

Sep 2016 – Jul 2017

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.
Proceedings of ITaS, 2016. 🔗 [PDF](#)

Petrov A., **Volodin S.** Janibekovs effect and the laws of mechanics.
Doklady Akademii Nauk, 2013. [↗](#) PDF

CONFERENCES

- [↗](#) Information Technologies and Systems (Saint-Petersburg, Repino, 2016), *Speaker*
- [↗](#) School “Control, Information, Optimization” (Saint-Petersburg, Repino, 2016), *Poster presenter*
- [↗](#) DeepBayes school on Bayesian methods in Deep Learning (Moscow, 2017), *Practical sessions participant*

SKILLS

Scientific programming: numpy, scikit-learn, MATLAB, Mathematica, TensorFlow, Theano, R

Programming: C/C++, Python, AVR C++, Qt, Scala, Java, nasm, MS SQL

Frameworks: Qt, Django, Android Studio

Environment: Git, Bash, Debian Linux, Ubuntu, SVN

Languages: Russian (native), English (TOEFL iBT 112/120), French (beginner)

SCHOLARSHIPS

- [↗](#) Abramov Fund’s scholarship for excellent grades (2014)
- [↗](#) Research Scholars program at EPFL CHILI Lab (2017)

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 Jul 2015 – Feb 2016
Software Engineer, C++, pthread, OpenOnload *Moscow, Russia*

- Developed High Frequency Trading (cross-border arbitrage) application 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** Jul 2015 – Feb 2016
Software Engineer, C++ (Atmel AVR, Linux) *Moscow, Russia*

- Created [↗](#) system architecture for the real-world escape room games
- 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

[↗](#) **TechnoWorks**
Quadcopter stabilization project

- 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
- Managed the [↗](#) community page at social network

VOLUNTEERING

[↗](#) **Anti-corruption foundation (Alexey Navalny)**

- Donator (2015–2017)
- Rally participant (June 2017)
- Agitation volunteer (July 2017)