

SERGEI VOLODIN

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Rue du Verneret 10A, 1373 Chavornay, Vaud, Switzerland

EDUCATION

École Polytechnique Fédérale de Lausanne

Sep 2017 – Jun 2019

MSc in Computer Science

Lausanne, Switzerland

- Relevant courses: Set Theory, Machine Learning, Functional Programming (Scala), Software Engineering (Android, Scrum).

Moscow Institute of Physics and Technology Sep 2012 – Jun 2017

BSc in Computer Science

Moscow, Russia

- Relevant courses: Algorithms and Data Structures, Functional Analysis, Random Processes, Convex Optimization, Machine Learning, NLP, Deep Learning.
- GPA: **4.84/5.00**

RESEARCH INTERESTS

1. Artificial Intelligence; Machine 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

Sep 2016 – Jul 2017

Research Intern

Moscow, Russia

- Designed and implemented  the algorithm (CAQM) 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

Feb 2016 – Jul 2016

Research project

Moscow, Russia

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

MIPT, chair of Theoretical Mechanics


Oct 2012 – Feb 2013

Technician


Moscow, Russia


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


PUBLICATIONS

Petrov A., **Volodin S.**  Janibekov's effect and the laws of mechanics. Doklady Akademii Nauk, 2013.

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: scikit-learn (PCC project), MATLAB (CAQM project), Mathematica (Theoretical mechanics), TensorFlow, Theano (DeepHack), R (course)


Programming: C/C++ (HFT), Python (EscapeControl), AVR C++ (EscapeControl), Qt (Quadcopter), Scala, Java (EPFL), nasm, MS SQL (MIPT)


Frameworks: Qt, Django, Android Studio

Environment: Git, Bash, Debian Linux, Ubuntu



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


SCHOLARSHIPS


 Research Scholars at EPFL CHILI Lab (2017)

 Abramov Fund's, for excellent grades (2014)

OLYMPIADS AND HACKATHONS

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

 Sixteenth interuniversity programming olympiad, Vologda, 2013




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

PROJECTS

TechnoWorks

2012 – 2015

Quadcopter stabilization project

- Developed an algorithm in C++ for stabilization of a quadcopter drones.  Repository
- Conducted the analysis of launches to improve flying quality
- Results were  published in the Habrahabr CS blog
- Managed the  community page at a social network

WORK EXPERIENCE

ITBrat

Jul 2015 – Feb 2016

Sw. Eng.: C++, pthread, Onload

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

Sw. Eng.: C++, AVR, Linux

Moscow, Russia

- Created a startup selling software & hardware  framework for real-world escape games
- Created  system architecture for the real-world escape room games
- Managed a team of two web developers
- Ten solutions sold, currently running in different countries

VOLUNTEERING

Anti-corruption foundation

2015 – 2017

Moscow, Russia

- Door-to-door campaign
- Street volunteer
- Rally participant