SERGEI VOLODIN

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EDUCATION

École Polytechnique Fédérale de Lausanne Sep 2017 –

MSc in Computer Science

Lausanne, Switzerland

• Relevant courses: Machine Learning, Software Engineering, Unsupervised and Reinforcement Learning in Neural Networks, Biological modeling of neural networks, Random graph theory, Functional Programming, Set Theory

• GPA: **5.61**/6.00

Moscow Institute of Physics and Technology

Sep 2012 – Jun 2017

BSc in Computer Science

Moscow, Russia

 Relevant courses: Machine Learning (intro), Algorithms and Data Structures, Convex Optimization, Random Processes, Functional Analysis

• GPA: 4.84/5.00

RESEARCH INTERESTS

- 1. Artificial Intelligence; Machine Learning
- 2. Mathematical Optimization
- 3. Robotics

RESEARCH EXPERIENCE

EPFL, CHILI lab Research Assistant Sep 2017 – present Lausanne, Switzerland

- Designed learning activities involving augmented reality and robots

Skoltech, Energy Systems

Sep 2016 – Jul 2017 Moscow, Russia

Research Intern

- Moscow, Russia
- Examined in MATLAB the structure of the set of boundary nonconvexities of an image of a quadratic map
- Designed and implemented the CAQM library which gives approximate solutions to a few problems involving quadratic maps

MIPT, Theoretical Mechanics dpt.

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

 ${\bf \Coloredge Deep Bayes}$ school on Bayesian methods in Deep Learning (Moscow, 2017), participant

☑ P.A.I.S.S. (AI Summer School) (INRIA Grenoble, 2018), participant, ☑ selected to receive financial help

SKILLS

Scientific programming: Keras, TensorFlow, Theano, scikitlearn, MATLAB, Mathematica, R

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

Programming: C/C++, Python, AVR C++, Scala, Java, nasm

Frameworks: Qt/QML, Django, Android Studio

Environment: Git, Bash, Debian Linux

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.

PROJECTS

☑ TechnoWorks

2012 - 2015

Quadcopter stabilization project

- Developed an algorithm in C++ for stabilization of a quadcopter drone
- Conducted the analysis of launches to improve flying quality
- Results were 🖸 published in the Habrahabr CS blog
- Managed the ${\hbox{$\ensuremath{\square}$}}{\hbox{$\ensuremath{\square}$}}$ community page at a social network

WORK EXPERIENCE

EscapeControl C++, AVR, Linux

Jul 2015 – Feb 2016 Moscow, Russia

- Created a startup selling software&hardware 🗷 framework for real-world escape games
- Managed a team of two web developers
- More than fifteen solutions sold, currently running in different countries

VOLUNTEERING

☑ Anti-corruption foundation

2015 - 2017

Moscow, Russia

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

HOBBY

Running, Snowboarding