SERGEI VOLODIN

sergei.volodin@epfl.ch in Ω +41 78 732 01 34 Route de la Chocolatière 29 A / 009, 1026 Échandens, Canton of Vaud, Switzerland

EDUCATION

École Polytechnique Fédérale de Lausanne Sep2017 –

MSc in Computer Science,

Minor in Comput. Neurosciences 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 a learning activity involving augmented reality and robots for teaching math, conducted experiments, analyzed data

Skoltech, Energy Systems Research Intern Sep 2016 – Jul 2017 Moscow, Russia

- Examined in MATLAB and theoretically the structure of the set of boundary non-convexities of an image of a quadratic map
- Designed and implemented the CAQM library which gives approximate solutions to a number of problems involving quadratic maps

 $\begin{array}{ll} \textbf{MIPT, Theoretical Mech. dpt.} & \text{Oct } 2012 - \text{Feb } 2013 \\ \textit{Technician} & \textit{Moscow, Russia} \end{array}$

- 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. Z Probabilistic prediction of nuclear receptors biological activity.

Proceedings of ITaS, 2016, in Russian

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

CONFERENCES

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

☐ DeepBayes school on Bayesian methods in Deep Learning (Moscow, 2017), participant

☑ Information Technologies and Systems (Saint-Petersburg, Repino, 2016), speaker

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, C#

Frameworks: Qt/QML, Django, Android Studio, OpenGL/GLSL, Unity 3D

Environment: Git, LATEX, Bash, Debian/Ubuntu Linux

SCHOLARSHIPS

☑ Research Scholars at EPFL ☑ DCL Lab (2018)

Research Scholars at EPFL C CHILI Lab (2017 – 2018)

☑ Abramov Fund's, for excellent grades (2014)

OLYMPIADS AND HACKATHONS

PROJECTS

☑ TechnoWorks

2012 - 2015

Quadcopter stabilization project

- \bullet Developed ${\hbox{$\mbox{$\mbox{$\it C$}$}}}$ 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 🗹 community page at a social network

WORK EXPERIENCE

Jul 2015 – Feb 2016 Moscow, Russia

- Created a startup selling software&hardware

 framework for real-world escape games
- Created 🗷 system architecture for the real-world escape room games (in Russian)
- Managed a team of two web developers
- More than twenty solutions sold, currently running in different countries

HOBBY

Running, Snowboarding, Swimming

VOLUNTEERING

Anti-corruption foundation

2015 - 2017

Moscow, Russia

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