

# SERGEI VOLODIN

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1026 Échandens, Canton of Vaud, Switzerland

## 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, Functional Programming, Set Theory
- GPA: **5.56**/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** Sep 2017 – present  
*Research Assistant Lausanne, Switzerland*

- Created  a library for seamless augmented reality using OpenCV and Qt
- Designed learning activities involving augmented reality and robots


**Skoltech, Energy Systems** Sep 2016 – Jul 2017  
*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*

## SKILLS

**Scientific programming:** Keras, TensorFlow, Theano, scikit-learn, 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  community page at a social network

## WORK EXPERIENCE

 **EscapeControl** Jul 2015 – Feb 2016  
*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
- 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