SERGEI VOLODIN

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

EDUCATION

École Polytechnique Fédérale de Lausanne
Sep 2017 –
MSc in Computer Science *Lausanne, Switzerland*

- Relevant courses: Machine Learning, Functional Programming, Software Engineering, 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*

School "Control, Information, Optimization" (Saint-Petersburg, Repino, 2016), *Poster presenter*

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

ITBrat Jul 2015 – Feb 2016
C++, pthreads, 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

VOLUNTEERING

Anti-corruption foundation 2015 – 2017
Moscow, Russia

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