Sergey Malashneko

Curriculum Vitae

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Education

2002–2007 **mathematician, system programmer**, *Sarov State Physics Technical Institute (MEPhI)*, *GPA – 4.95*

2011–2015 **Ph.D. not complete**, *National Research Lobachevsky State University of Nizhni Novgorod*

2020–2022 **data science and data engineering**, *OZON Masters*

- Machine Learning, Deep Learning
- Generative models, Reinfocement Learning, Natural Language Processing
- Mathematical Statistics and Applications
- Numerical Linear Algebra
- Big Data and Data Engineering

Experience

2018–Present **Team Lead/Data Scientist**, ERLYVIDEO, `https://flussonic.ru/`

Under my supervision and with my participation, a license plate detection and recognition system was developed. To do this, we collected and annotated the necessary data, developed a tool for generating synthetic car license plates, then developed the required neural network models for objects detection and text recognition. Also we developed a human face detection and recognition system. Both systems are in production now.

2015–2018 **Senior Software Engineer**, V5SYSTEMS, `https://v5systems.us/`

Under my supervision and with my participation, a video analytics system was developed to solve the problem of detecting objects (person, car) on embedded systems. (Nvidia Jetson TX1, TX2). To do this, we collected and annotated the necessary data, then developed compact neural network models, created our own inference engine, and implemented object tracking algorithms.

2011–2015 **Senior Software Engineer**, INTEL, `https://intel.com/`

Participated in development of MOST library with geometric primitives and algorithms which is used for building numerical grid. Added support exact real arithmetic in core algorithms. Participated in development Level Set Methods library. Implemented numerical solver for electromigration problem.

2007– 2011 **Junior Researcher**, RFNC-VNIIEF, `http://www.vniief.ru/`
Participated in the development of numerical solver of gas dynamics and heat transfer equations. Performed parallelization of the numerical core and service algorithms using OpenMP and MPI.
Participated in a joint project with OKBM Afrikantov. Applied similarity theory for theoretical research of the problem and we performed numerical experiments that proved the applicability of some turbulence models for describing of the problem.

2007–2008 **Software Engineer**, *CJSC INKOMET*
Implemented software package for the thermal measurement module. Performed numerical experiments on the equipment of OJSC NLMK.

Languages

Russian Perfect

English Intermediate

Skills

Math background Machine learning, Deep learning, Neural networks, Finite element method, Finite volume method, Systems of partial differential equations (Navier–Stokes, Maxwell), Level Set Methods

Programming languages C/C++, Python, Bash, Lua, LaTeX