

SERGEY SIVKOV

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EDUCATION

Perm State University, department of Physics

Master Degree in Electrical Engineering

Specializations:

- Computer Science
- Electronics
- Mathematical Logic

Perm, Russia

Sept 1989–Jun 1994

LEGAL EXPERIENCE

Metakom-Alpha

<https://metakom.tech>

Программист /Python(PyTorch, OpenCV), C++(OpenCV, CUDA, Boost, Sciter)/ Feb 2021–

Designing and developing framework for CV based systems responsible for firearms, fire, smoke, drone recognition as for realtime surveillance cameras as for archive videostreams. Modification of the YOLOv4 architecture to instant detect of small objects over long distances. Darknet53 framework improvements to speed up learning on large datasets. Improvements of the tkDNN framework to allow inferencing P6 models.

Perm, Russia

Morion

<https://morion.ru>

Senior Engeneer /OCaml, C, C++/

Developing host Ocaml based kernel of L2 switch. Developing host ACL, QoS, firewall support for NPU. Developing Menhir based test suite for our messaging system (it based on zmq and protobuf). Developing backend utilities and their Clish command line support. Developing transaction support and optimizer for NPU messaging. Support x86/ARM OCaml cross-compilation build system with partial integration to jenkins.

Perm, Russia

Dec 2016–

Prognoz

<https://prognoz.com>

Expert /C++(COM, ATL, Boost, MFC, Sciter), SQL3, MDX, Apache Axis/

Designing and developing dynamic dimensions kernel for Prognoz Platform. Developing initial GUI support for dynamic dimensions kernel. Porting server part of Prognoz Platform to Linux.

Perm, Russia

Dec 2012–Dec 2016

Aspose Pty Ltd

<https://aspose.com>

Programmer/Java, C#, C++/

Developing and support Aspose.PDF for Java. Developing bitmap to vector converter for embedding PCL fonts as TTF. Developing test server for project 's needs.

Perm, Russia

Feb 2010–Dec 2012

PSTU, ITAS
<https://pstu.ru/en>

Senior Lecturer

Developing and teaching following courses:

- distributed systems and programming (Erlang/Mnesia, MongoDB, Cassandra/ScillaDB, Hadoop/Spark, C++/Boost/ASIO/PION, CUDA);
- digital design and computer architecture and interfaces (Verilog, CPLD/FPGA, Arduino). Course based on the classic Harris book "Digital Design and Computer Architecture";
- geoinformation systems. Course based on Samet's book "The Design and Analysis of Spatial Data Structures".

Pemskiy Zavod Mashinostroitel
<https://pzmash.ru/>

Acting director of the IT department

Management of in house software development projects. Management of enterprise LAN administrators. Developing of measures to ensure information security.

Developed software:

- accounting worker's computer relating time spending (C++, Perl, Python, Java /WingS Web Framework/)
- translator from XML-based description of a graph of CAD/CAM objects to PLM system over COM interface (F#)

Complex-S

Lead Programmer, Project manager

Designing and implementing software for complex workflow automation:

- I, Paul Koshkin and Nikita Kislookhin have designed and implemented the Information System for Housing and Communal Services of the Perm city (PostgreSQL, Java, Groovy)
- Under the task of the Main Administration of the State Traffic Security Inspection of the Russian Federation I and Paul Koshkin have developed and have put in operation the software for the gathering, the centralized storage and information search for Municipal Department of Internal Affairs and Department of State Traffic Security Inspection of the Perm region. Our software operates on images of moving in a stream of vehicles produced by the PACs "Sova - 2". At the moment the size of a database closes to 300Gb and it is constant accessible to performance of search inquiries from the moment of the first start in June 2001 (Oracle 9i, PL/SQL, C++, Java)

KamaTrade

System Administrator, Project manager, Director of the IT department

Developing cost-efficient software with "1C", Scheme, Python and Perl under WinNT operating system.

Developing business-critical analytical system (Oracle 8.1.7i, Java, Perl)

PharmMedService

System Administrator

Administering LAN and NNTP/FTN gate. Developing cost-efficient software with C, C++, and Perl under Unix operating system. Administering regional IP/UUCP network MEDNET.

AviaDvigatel
<https://avid.ru/en>

Engineer

Perm, Russia
Sep 2008–

Perm, Russia
May 2005–Jul 2008

Perm, Russia
Apr 2000–May 2005

Perm, Russia
Aug 1998–May 2003

Perm, Russia
Jun 1996–Aug 1998

Perm, Russia
Sept 1993–Jun 1996

Developed industrial and scientific software applications. Worked in a team of 4 programmers on projects using CAD UniGraphics, OpenGL, and Motif. Worked with PVM (Parallel Virtual Mashine).

SKILLS AND CERTIFICATIONS

- Project management
- Software development for Unix, MS Windows, WM6 and Android operating systems
- Knowledge and experience in the development on following programming languages (and frameworks):
 1. C, C++ (Boost, STL, OTL, CryptoPP, PVM, MPI, Sciter/HTMLLayout, MFC, WxWidgets, OpenGL, OSG)
 2. Java, Clojure, Groovy (JMS, JMX, XOM, Swing, StringTemplate, WingS, Hibernate, JasperReports, JFreeChart, VisAD, ANTLR)
 3. C# (OpenNetCF, ILNumerics)
 4. Perl, Python, PHP
 5. Ocaml (ocamlgraph, ocamlnet, lwt, ocsigen), F# (WebSharper, FParsec), Scheme
 6. Erlang, JoCaml
- Knowledge of the following markup languages: TeX, LaTeX, HTML/XSLT
- Knowledge and experience in the development on HDL SystemVerilog and Verilog (Icarus, Altera Quartus)
- Knowledge and experience in the development for following DBMS:
 1. PostgreSQL
 2. Oracle
 3. MySQL
 4. MS SQL/MDX
 5. MongoDB
- Knowledge and experience in the using of following CAD/CAM/CAE systems:
 1. NX
 2. Inventor
 3. ANSYS
- Knowledge and experience in the using of following project management and project support systems:
 1. Source Control Mamagment: CVS/SVN/Git/TFS
 2. Issue tracker: Trac/Gemini/Jira/TFS
 3. Distributed build management: TeamCity
- Knowledge and experience in the using of following mathematical and statistical systems:
 1. GP/PARI
 2. R
- Foreign languages knowledge:
 1. English (advanced level)
 2. Spanish (beginner level)
- Certified by Intuit.RU:
 1. Design of information systems
- Certified by TekMetrics/BrainBench:
 1. Master Perl Programmer
 2. Master UNIX Programmer
 3. Master PL/SQL Programmer
 4. Master Java2 Programmer
- Completed Coursera courses:
 1. Computing for Data Analysis - 99.0% with Distinction

2. Programming Languages - 92.3%
3. Data Analysis - 77.2%
4. Cryptography I - 83.3% with Distinction
5. Programming Mobile Applications for Android Handheld Systems - 100.0% with Distinction
6. Machine Learning - 100.0%
7. Heterogeneous Parallel Programming - 100.0% with Distinction