EDUCATION:

2005-2007   Postdoc, GPS, California Institute of Technology, Pasadena, USA
2002-2005   PhD in Physics, Heidelberg University and MPI-K, Germany
1993-2000   MSc, nuclear physics department , Saint-Petersburg State University, Russia

AREA of EXPERTISE and SKILLS:

programming in convenient for application language
assesment of radiation detectors: response to praticles, measurement ranges, doses, output signals, calibration

Software development: programs, databases, interfaces, libraries
Algorithms for parallel computing: MPI and threads
Radiation detector development: Simion, Geant4
Modeling of hypervelocity impact: wondy, Autodyn

Development/Environment/Tools:
*Unix, Windows
Perl, C/C++, Java, Fortran
Bash scripts, Apache, CGI, HTML, SQL, Oracle, XML
Vi, Eclipse, NetBeans, Code::Blocks
Matlab, IDL

PROFESSIONAL EXPERIENCE:

January 2013 — present
Max-Planck Institute fofr Solar System Research, Göttingen, Germany
www.mps.mpg.de
Position: archive scientist (scientific programmer)
Project description: Support the data production from EDI instrument on Cluster spacecraft
1. Support/extend a production data chain for scientific data: run production software, fix bugs, write add-ons, correct data files, synchronize data between servers : bash, perl, c, idl
2. Perform database migration to a new server
3. Model detector of electrons using Geant4 software, c++, matlab
4. Improve performance of F90 program for parallel computing using openMPI

June 2009-December 2012
■ T■■■ Systems, IT department of Deutsche Telekom in Saint-Petersburg, Russia
www.t-systems.ru
Position: Software engineer
Projects descriptions:
1. Investigation of Testing software for purpose of re-engineering: Java, shell scripts, excel (access to mySQL), svn (Eclipse, ant).
2.Development in Perl for distributed calculations system AIX->Linux/Windows
Responsibility: add functionalities for XML processing, CGI interface to new tools, SVG creation, log processing, building statistical functions for log processing and analysis of server load.
3. Writing shell scripts, Perl scripts for migration from HP-UX to SuSe.
4.Programming GUI and sql-querries using ROSI-SQL to add IPv6 support, bug tracking system, svn.
5.Development of ARS based system: development of forms on ARS, Oracle database procedures, Perl API to ARS, svn
6. Development in C++ for automotive engineering software

October 2007- May2009
Giesecke & Devrient **GmbH, Germany, R&D (branch office in Russia)**
www.gi-de.com
Position: Senior software engineer and team leader at research department
Project descriptions: Development of Contact Image Sensor and
algorithms for image recognition
Responsibilities:
1. Development of algorithms for image recognition in C++: using artificial neural network code for symbols recognition, conversion of raw data to BMP, pixel comparison .
2. Evaluation and development (linearity, compensation curves) of novel optical sensor(1700 pixels)

February 2008- March 2008
California Institute of Technology**, Pasadena, USA**
www.gps.caltech.edu
Position: Visitor
Project description: *NASA project to study material properties under hypervelocity impact*
Responsibility:
Develop techniques and conduct experiments, calibrate mass spectrometer,
assemble detector parts, adjust laser and etc., acquire experimental data on Calcite and Gypsum

September 2005- September 2007
California Institute of Technology, Pasadena, USA
www.gps.caltech.edu
Position: Postdoctolar scholar
Project Description: *NASA funded project for study of properties of planetary materials and for supply of experimental data for Cassini spacecraft mass analyzer.*
Responsibilities:
1.Development of mass spectrometer to analyze ionization upon hypervelocity impact (experiments and model development using Simion 7 and Matlab)
2.Development of new invented explosive driven gun (experiments and calculations using Autodyn)
3.Calculation of meteoroid impact in Hydrocode calculations (Fe, SiO_2, porous materials)

March 2002- May 2005
PhD student, Heidelberg University and MPI-K**, Germany**
www.mpi-hd.mpg.de
Position: PhD student
Project description: *Development of instrument for prospective space mission to study chemical composition of small particle*s
Responsibilities:
1.Development of mass spectrometer to analyze cosmic dust particles(Simion 7, Matlab)
2.Modeling of ionization in solid bodies (Matlab)

January 2001- February 2002
Researcher, Uppsala University**, Sweden**
www.uu.se
Project description: *SCHICSi project to study heavy ion reactions at intermediate energies*
Responsibilities:
1.Measurements of heavy ions characteristics (Energy, mass) at storage ring laboratory
2.Calculations for radiation attenuation for heavy ions (C, ROOT framework)