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Employment highlights (detailed description below)

* Cotiviti – Director, Digital Transformation 2017 – 2019
* Ab Initio Software – Field Consultant 2014-2017
* Unitymedia – Team Lead/Architect 2002-2014

# Areas of expertise:

## Software Architecture

##### Director, Digital at Cotiviti, Wilton, CT [2017- 2019]

* Ultra-high performant Policy Evaluation Engine – up to 100 million policies per second, enough to serve all company needs on the single platform, execution time depending logarithmically upon the number of policies per claim
* Graphical web interface for suppling policies by business analysts in a consistent way, with only intermediate Excel skillset required
* Easy to use web interface for specifying Suppressions and Exceptions to medical policies
* Develop the strategy for data life cycle: acquisition, cleaning, validation, linking with references, enrichment and secure archiving
* Technical design principles and implementation of Enterprise Data Model for medical claims – the keystone data exchange format for the central data governance
* Toolset for automatization of the reference data export from Oracle databases into other formats on the platform

##### Team Lead/Architect responsible for all technical aspects of web life at Unitymedia, Cologne, Germany [2002-2013]

* Development, deployment and support of corporate high traffic websites based on Fatwire content management system: www.unitymedia.de, www.ish.de and www.iesy.de
* On-line subscription sale for all company products, including local product availability check and integration with the support system
* Development of strategy, general architecture and technological platform for user account and integration of user accounts with ISP services, audited for security and compliance with IT standards
* Deployment and support of multimedia entertainment portal [www.ish.com](http://www.ish.com), including streaming, network games, public depository of free software, free SMS service etc.
* Online Video-On-Demand sale – hands-on technical and full software life-cycle, starting from loading program information, processing support and publication up to support system integration
* Identify feature requirements of retail and e-commerce systems

## Software development

20 years as a hands-on Java Developer: Java (J2EE), Core Java, Servlets, JSP, JDBC, Jboss, Tomcat, Sprint Framework, Hibernate, Eclipse

25 years as a database developer: Oracle, MySQL, PostgreSQL, SQL Server, Netezza, Sybase, dBase

35 years of total developer experience: PHP, Python, JavaScript, Perl, VBA, Visual Basic, Korn and batch shell scripts, Fortran, Cobol, Algol, Pascal, Matlab, Mathcad, Mathematica

Many years of operations support in Linux: Debian, Ubuntu, RedHat; Sun Solaris as well as Microsoft Windows products

## Finance

### Retail banking

ETL Consultant at JP Morgan Chase, Wilmington, DE [2016-2017]

### Created data flow for processing with high concurrency several billion records of business data daily on the Hadoop file system; participated in Teradata to Ab Initio conversion; built self-adjustable dataflow allowing the registration and managing of input types of records

### Investments/ Hedge funds

Quantitative Analyst at [Pacad Investment Ltd](http://www.symmetric.io/hedge-fund-employee/PAVEL-VOLFBEYN-1JC50) [2017]

### Led the comprehensive migration efforts of the entire platform code base from [Python 2.7](https://www.python.org/downloads/release/python-2714/) to [Python 3.6](https://www.python.org/downloads/release/python-363/). As a result of this initiative, about 100K lines of Python code were migrated within 5 weeks, causing no disruption for business and no downtime

### **Accounting**

##### Senior Finance System Analyst at Pepsi International Bottlers, Moscow, Russia [1997-1998]

### Led the implementation, integration and support of Pepsi Finance & Accounting System for the branches in the Asian part of Russia

### Created a payroll module allowing to combine gross and net payments within a single paycheck under progressive tax rate

### **Billing**

##### Finance Programmer at TeleRoss, Moscow, Russia [1997-1998]

### Audited, documented and optimized the business process for the monthly billing cycle

##### Technical Lead for Voice Billing at Graphnet Inc., Teaneck, NJ [1998]

### Designed and led development, deployment and support of the billing system covering over 1 million of telephone calls daily

### Developed, documented and deployed business processes for the company billing cycle, provided technical direction for accounting personnel

### Supervised voice billing process, was responsible for accuracy of the final bills

### Small business / Open Source

[Home Finance](http://www.tyoma.com/familySoft/) at Tyoma.com [1997]

### a model of financial relations between spouses, retirement investments, etc. The software implements dual currency approach, automatic retrieval of €/$ exchange rate from the Internet and much more

Freelance Invoicing at Tyoma.com [2004]

### for use by freelance and small businesses for billing clients. It is multilingual, tuned to the freelance translation business, and also keeps track of unpaid bills and computes the actual internal hourly rate per order.

## Science

***35 scientific papers on mathematical modeling in various disciplines - from genetics to mechanics***

##### **Reviewer and Referee** [1993-1997]: Journal of Physical Chemistry, Electrochimica Acta, Journal of Electroanalytical Chemistry, Analytica Chimica Acta, Analytical Chemistry

##### Physical Chemistry

* NATO Science Fellow, Department of Chemistry, Trent University, Peterborough, Canada. [1994-1995]
* The Royal Society Postdoctoral Fellow, Physical Chemistry Laboratory, Oxford University, England. [1993]

### Thermodynamics

* Visiting Scientist, Dept. of Thermodynamics, Valencia University, Spain [1992]

### Hydrodynamics

* Visiting scientist, supported by the Swedish Academy of Sciences - Dept. of Hydromechanics,  Royal Institute of Technology, Stockholm, Sweden [1991-1993]

### Electrochemistry

* Research Fellow, Theoretical Department, Frumkin Institute of Electrochemistry, Russian Academy of Science, Moscow [1990-1991]
* Ph.D at the Frumkin Institute of Electrochemistry, Moscow, Russia. Thesis title: "Diffusion-migration current in systems with parallel homogeneous and electrochemical reactions" [1989]

### Biophysics

* Exchange Program Scientist, Dept. of Biophysics, Humboldt University, Berlin [1990]
* M.S. [Diploma] Thesis title: "Biological Cell Behavior in External Electric Field". Work performed at the Frumkin Institute of Electrochemistry[1986]

### Theoretical nuclear physics

* B.S. at Moscow Engineering Physics Institute [1985]

### Applied mathematics

* Developed an original method for solving the system of non-liner differential equation of certain kind
* Minor from Moscow Engineering Physics Institute
* Received several high profile awards in math competitions in the Moscow State University while in high school.

## Engineering

### Chemical Engineering

* Senior Research Associate at Illinois Institute of Technology, Chicago, IL [1995-1996]  
  Fuel cells research and modeling

### Network Engineering

* Manager at Unitymedia, Cologne, Germany [2010-2013]  
  General supervision of network element monitoring, covering over 14,000 devices, 24/7/365 operations

### Electrical Engineering

On several occasions designed, modeled and implemented one- and three- phase power schemas for 220/380 volts equipment

## Other areas of expertise/proficiency

Audit/Insurance: Technical design principles and implementation of Enterprise Data Model for medical claims – the keystone data exchange format for the central data governance

### E-commerce:

* Sale of subscriptions for cable company products, including local product availability check and integration with the support system
* Online Video-On-Demand sale
* Led operation and multi-stage redesign of the Newsstand, turned into a scalable e-commerce application for collecting subscription orders for Time Inc. magazines.
* Managed Time Inc. Home Entertainment e-commerce initiative

Construction: carpenter, [tiler](https://www.linguee.com/english-russian/translation/tiler.html), plumber, landscaper tractor operator, HVAC and Parquet Flooring specialist, masonry worker as well as general contractor

Design, construct and sew sports equipment and clothing

Trained as a beekeeper and bookbinder

# Projects by industry:

* **Healthcare**: Cotiviti [2017-2019]
* **Telecom**: TeleRoss [1997-1998], Graphnet [1998-1999], Unitymedia [2002-2013], PoCs at Comcast and Time Warner Cable [2014]
* **Publishing**: Time Inc. [1999-2000], StarMedia [2000-2001]
* **Retail**: Pepsi [1996-1997]
* **Social Media**: aooa.de [2006], wowirwohnen.de [2009-2013]
* **Logistics**: Fedex [2015-2016]
* **HR**: Ecopsy [2004]
* **Education**: uchi.ru [2014], author of an experimental high school math course [1984-1987]
* **Academic research** [1990-1995]

# Personal achievements

* Led a team of hikers to the summit of Peak Korzhenevskaya at 7,105 m (23,310 ft) in just 72 hours without oxygen [1992]
* Led a team of kayakers in the 5th category white water expedition in Northern Russia [1984]
* Licensed as a private pilot (Canada, 1995)