

# NIKOLAY ANISIMOV, PH.D.

Concord, California, USA

---

Email: [anisimov@computer.org](mailto:anisimov@computer.org)  
[www.fiztech-usa.net/anisimov](http://www.fiztech-usa.net/anisimov)

Cell: 925.550.9730  
[www.linkedin.com/in/nikolayanisimov](http://www.linkedin.com/in/nikolayanisimov)

## SUMMARY

Solution-driven **Computer Scientist and Software Architect** with over 20 years of experience in the contact center software industry. Strategy planner in areas of disruptive technologies and products of new generation. Solid academic research background. Main strengths are in the development and application of new technologies to design and implement complex software systems. Effectively works in a multinational and distributed environment. Main areas of expertise:

- Expert in Computer Telephony Integration (CTI) including 3<sup>rd</sup> party call control, call model, agent model, IVR, routing, outbound dialing, and reporting.
- Skilled in all stages of software development process including use cases analysis, managing product requirements, transforming them into technical specifications, prototyping, development, documentation.
- Proficient in application research methods, algorithms to solving challenging problems.
- Author / co-author of 71 US patents ( [52 issued](#), [19 pending](#) ) and more than 40 international.
- Wrote numerous research and technical papers in the areas of contact center software, algorithms and other computer science topics. All citations: 2611, h-index: 27.
- Effective verbal and written communicator fluent in both English and Russian.

## TECHNICAL SKILLS

<b>Languages:</b>	C/C++, Java, JavaScript/Node, Erlang/OTP, Python, R/Shiny, Pascal, Prolog
<b>Web Technologies:</b>	XML, AJAX, ExtJS, REST, VoiceXML, CCXML, Yaws, NodeJS, WebRTC...
<b>Linked Data:</b>	RDF/RDFS/OWL, SPARQL, JENA, Protégé, Joseki, Fuseki, Neo4j/Cypher
<b>Web APIs:</b>	Twilio, Tropo, LivePerson, RightNow, Salesforce
<b>Formal Tools:</b>	FSM/FSA, Harel's diagrams, SDL, LOTOS, Estelle, UML, Petri Nets, BPMN, SCXML.
<b>Contact Center Software:</b>	Genesys software: Routing/IRD, IWD, SDK, eServices, BPR, multimedia, Social channels, MCR, outbound/OCS, WFM, reporting, Amazon Connect.
<b>Artificial Intelligence</b>	Natural Language Processing (NLP) and Machine Learning, Regression, Classification, Clustering & Retrieval, Recommender systems, Sentiment Analysis, Python, NLTK, GraphLab Create, scikit learn, IBM Watson/Bluemix, R, Spark, AWS Lex
<b>Simulation Tools:</b>	C++, AnyLogic, practical queue systems (Erlang C, Erlang A)
<b>Other:</b>	Assembler OS IBM 360/370, PL/1, Fortran, LaTeX

## PROFESSIONAL EXPERIENCE

**WELLS FARGO, INNOVATION GROUP**, San Francisco, CA

**SEPTEMBER, 2017 – P.T.**

*Advanced research in financial industry*

### **Knowledge Graph Engineer - Strategy Consultant**

Interactive visualization of knowledge graphs for financial industry based on linked data technologies (RDF/OWL/Sparql) and R/Shiny/visNetwork frameworks. Research in network embedding techniques and applications

### **CONSULTING**

**2015 – P.T.**

*AI-based contact center solutions*

**Consultant** Advanced technologies in contact centers, interaction management, routing, outbound dialing, application NLP and machine learning for Aspect Software, Bright Pattern, Sundown AI, etc.

- BRIGHT PATTERN, INC.**, San Bruno, CA **2014 –2015**  
*Cloud-based contact center solutions*  
**Director of Research** Planning strategy in migrating contact center infrastructure into computing cloud. Multichannel contact centers, predictive dialing algorithms development, workforce optimization, intellectual property management.
- FIVE9, INC.**, San Ramon, CA **2010 –2014**  
*Cloud-Based Contact Center Software market leader*  
**Software Architect** Advanced methods of predictive dialing, multimedia channels, 5 US patents awarded.
- FRONTRANGE SOLUTIONS**, Pleasanton, CA **2009 –2010**  
*Global market leader in the development and delivery of software applications*  
**Software Architect** Architecture of voice platform for SaaS (Software-as-a-Service).
- GENESYS TELECOMMUNICATION LABS**, Daly City, CA **1997 – 2009**  
*Worldwide leader in contact center software*  
**Principal Software Engineer** in roles of system architect, product manager, applied researcher.
- Planning strategy in development of architecture of multimedia contact centers. Authored major solution level design of complex features and solutions for all recent releases including orchestrated eServices, Business Process Routing, Cost-Based Routing, Load-Balanced Routing which form a valuable part of company’s product portfolio.
  - Research, design, prototyping and implementation of algorithms for dynamic contact center components including outbound predictive dialing, workforce optimization, optimal routing, agent status model that substantially improved quality and performance of the products.
  - During working with the company authored/coauthored of 66 US patents (47 issued, 19 pending) in areas of software development, telecommunication and contact center technologies.
  - Published results in scientific journals and conference proceedings, give presentations at internal research seminars, international forums and conferences.
- INSTITUTE FOR AUTOMATION AND CONTROL PROCESSES**, Vladivostok, Russia **1978 – 1997**  
*Far East Branch of the Russian Academy of Sciences*
- Professor**, Applied and basic research, teaching and student supervision
- Working out a strategy of basic and applied research in the areas of theoretical computer science with special emphasis in Petri nets and process calculi, Petri Net Tools (PN<sup>3</sup>-Tool), methods of specification and verification of communication protocols. Published about 80 research papers and technical reports.
  - Participated in creation of one of the first Soviet computer networks in a role of a designer and developer of transport layer based on OSI/ISO architecture and protocols, 1979-1984.
  - Taught courses on operating systems, network protocols, distributed algorithms, models of concurrent computations. Supervised B.Sc., M.Sc., and Ph.D. students.

### EDUCATION

PhD, Computer Science, Moscow Institute of Physics and Technology

MS, Computer Science, Moscow Institute of Physics and Technology

### SELECTED COURSERA CERTIFICATES

Machine Learning Specialization: Classification, Regression, Clustering and Retrieval. University of Washington, 2017  
Hadoop Platform and Application Framework, University of California, San Diego, 2016

### PROFESSIONAL ASSOCIATIONS

Institute of Electrical and Electronic Engineers (IEEE), member since 1997

Institute for Operations Research and the Management Sciences (INFORMS), member since 2009