# **Dmitry Bogdanov**

CONTACT Information Staff Software Engineer

Genesys Telecommunications Laboratories

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Job title

## Staff Software Engineer

Keywords

Java 6,7,8, Design Patterns, Enterprise Integration Patterns, SOA, C#, .NET Framework, C++, Concurrency Framework, Spring Framework, ActiveMQ, JMX, JMS, PostgreSQL, Riak, Maven

#### EDUCATION

#### Saint-Petersburg State Polytechnical University, Saint-Petersburg, RF

Ph.D., Fluid, Gas and Plasma mechanics, July 2016

- Thesis Topic: Numerical simulation of heat transfer through spacecraft surface for a weakly ionised hypersonic flow
- Adviser: Senior Scientist Poniaev S.A.
- Area of Study: Computational Fluid Dynamics, Aerospace, Aerodynamics, Plasma physics

M.S., Applied Mathematics and Physics, July 2012

- Thesis Topic: Numerical simulation of an air flow inside a cyclone filter and implementation of a Shur-Spalart curvature-correction term for  $k-\omega$  SST turbulence model
- Adviser: Senior Scientist Poniaev S.A.
- Area of Study: Computational Fluid Dynamics, Aerodynamics

B.S., Applied Mathematics and Physics, July 2010

- Thesis Topic: Numerical simulation of supersonic flows
- Adviser: Docent Bulovich S.V.
- Area of Study: Computational Fluid Dynamics, Aerodynamics

# REFEREED JOURNAL PUBLICATIONS

- [1] Bogdanov D.A., Bulovich S.V. Numerical simulation of hypersonic flow over forward-facing step. *International conference of XXXIX science-week SPBSTU materials*. Pages: 20–22. 2010. Link
- [2] Bogdanov D.A., Ponyaev S.A. Numerical simulation of turbulent flow in a cyclonic separator. *Journal of Physics, Conference Series, Vol.* 572, 2014, 012056 Link
- [3] Bogdanov D.A, Kuznetsov E.A., Ponyaev S.A. Effect of plasma non-equilibrium on heat fluxes in high-speed flow. VIII International Conference of Plasma Physics and Plasma Technology, 2015 Link

### Professional Experience

# Genesys Telecommunications Laboratories, Saint-Petersburg, RF

Staff Sowtware Engineer

March 2016 to present

• Development of server components for Genesys Web Engagement project. (SOA, Spring, Concurrency, Maven, Intellij IDEA)

#### Speech Technology Center, Saint-Petersburg, RF

Senior Software Developer

July 2013 to February 2016

• Currently responsible for server components of highload system for speech recognition, sound processing and tracking. (SOA, Spring, .NET, Concurrency, JNI, JMX, JMS, ActiveMQ, Maven, Ant, PostgreSQL, Riak, Tomcat, Mercurial, Subversion, Intellij IDEA, Visual Studio, ReSharper, TeamCity, CentOS)

#### GGA Software, Saint-Petersburg, RF

Software Developer

#### February 2012 to July 2013

- Architecture and implementation of workflow processing and visualization system for Biodatomics project. (Java, Ruby on Rails, Concurrency, PostreSQL, Apache Hadoop, Javascript, jQuery, Backbone.js, Git, Intellij IDEA and RubyMine)
- PDF parser for highly accurate content-recognition and building HTML-representation of parsed PDF on desktop and mobile platforms for **Bibliorossica** project. (JavaSE, Tomcat, Hibernate, Concurrency, Spring, Spring-MVC, Spring integration, ImageIO, C++, PDF parsing, PostgreSQL, JSP, Javascript, jQuery, Git, Intellij IDEA, Eclipse)
- Web-development **I'mScientist** (REST, Ruby on Rails, PostgreSQL, MongoDB, Solr, Javascript, jQuery, Git, Vim and Sublime Text)

### Corning Inc., Saint-Petersburg, RF

Engineer

#### September 2010 to January 2012

- C++11 development (Implementation of CFD solvers for chemically-reacting gas flow in porous media using OpenFOAM)
- Designing catalytic convertors and diesel particle filters
- Numerical simulation in ANSYS Fluent and ANSYS CFX

#### TWELL Company, Saint-Petersburg, RF

Engineer

# September 2009 to December 2010

- Theoretical research and numerical simulation of pneumatic breakwaters and interaction between sea waves and bubble plumes
- Development of a physical model applicable for pneumatic breakwaters

APPLICATION AREAS Software Development: Java, C#, C++, Ruby on Rails, JavaScript
Applied Mathematics and Physics: Aerodynamics, Aerospace, Solid Mechanics

Professional Skills

- Programming Languages: Java, C#, Ruby, C++, JavaScript
- Frameworks, libraries and tools: Java Concurrency, Spring, JMS, ActiveMQ, JMX, Batis, Hibernate, Maven, Nuget, Ant, JUnit, Cucumber, NUnit, Ruby on Rails
- RDBMS: PostgreSQL, MySQL
- NoSQL: Riak, MongoDB, Solr
- IDE: In love with Intellij IDEA but also familiar with Visual Studio with ReSharper and several editors such as Vim, Sublime Text and TextMate
- VCS: Git. Mercurial. Subversion
- CFD: SU2, OpenFOAM, ANSYS CFX, ANSYS Fluent, ANSYS Workbench, ANSYS Mechanical, ICEM, Gambit, Salome, CHEMKIN
- OS: MacOS X, Windows, Linux RedHat (CentOS), Ubuntu