Artyom Smirnov

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Brief description

My main direction — system development and DBMS.
My primary programming language — C++.
I enjoy OpenSource software and tools which I use both for work and fun.

Projects

C++

Red Database	http://www.red-soft.biz/en/reddatabase_product.html
	Firebird DBMS fork with improved security
SciDB	http://www.scidb.org
	DBMS for large-scale scientific experiments based on multi-dimensional arrays

Python

scidb4py	https://github.com/artyom-smirnov/scidb4py
	Pure python SciDB client library implementation

Pascal

MTDORB	http://sourceforge.net/projects/mtdorb/
	Opensource ORB for Pascal

Experience

Dec 2009 - Sep 2013 — **Software Engineer**, *SciDB*.
Query parsing, translating and processing
Client tools
Client libraries and drivers
JDBC driver
Build system, packaging

May 2007 - Aug 2009 — **Software Engineer**, *Red Soft Corporation*.
Security improvements in Red Database - fork of Firebird RDBMS
Porting MTDORB from Kylix to Free Pascal
Porting to Linux and supporting Firebird/Red Database replication utility

Development skills

Programming Languages

C++, C, Bash	**Expert**
Python, Java	**Intermediate**
LaTeX, Pascal	**Basic**

Tools

gcc, gdb, valgrind, bison, flex, cmake, git, svn, ant, maven

Computer skills

IDE	Eclipse, QtCreator, Xcode
OS	Linux (RedHat, Debian), MacOS X

Education

Sep 2004 - Jul 2009	**Information Technology**, *Murom Institute (branch) of the Vladimir State University, Murom, Russia.* Engineer

Publications

Target-oriented distributed approach for query optimization in DBMS (rus)
Smirnov A.V. Proceedings of «Scientific creativity of the XXI century (NC-2012)». 2012. #3. Pp. 71-79.

Problems of query optimization in extensible DBMS SciDB (rus)
Smirnov A.V. Algorithms, methods and systems of data processing. 2011. N3(18).

Distributed approach for searching in query optimizer search space (rus)
Smirnov A.V. Algorithms, methods and systems of data processing. 2011. #3(18).

Dynamically extensible query optimizer (rus)
Smirnov A.V., Pugin E.V. Proceedings of «Problems of informatics and modelling (PIM-2011)». 2011. P. 69.

SciDB - new DBMS for big size of scientific data (rus)
Oleg Bartunov, Pavel Velikhov, Roman Simakov, Konstantin Knizhnik, Artyom Smirnov. Supercomputers journal. #5(15). Moscow. 2011.

Overview of SciDB: Large Scale Array Storage, Processing and Analysis (eng)
J. Rogers, R. Simakov, E. Soroush, P. Velikhov, M. Balazinska, D. DeWitt, B. Heath, D. Maier, S. Madden, J. Patel, M. Stonebraker, S. Zdonik, A. Smirnov, K. Knizhnik, Paul G. Brown SIGMOD 2010

The control of access to system catalog in DBMS «Red Database» (rus)
Roman Simakov, Artyom Smirnov. Information security of regions journal. #1(4). pp. 62-66. Saratov. 2009.

Development of query optimizer model (rus)
Smirnov A.V., Pugin E.V. Algorithms, methods and systems of data processing. 2010. #15. Pp. 161-169.

Specifics of data distribution in multidimensional DBMS SciDB (rus)
Smirnov A.V., Andrianov D.E. Algorithms, methods and systems of data processing. 2009. #14. Pp. 158-163.

Links

Personal page	http://www.artyom-smirnov.info/
LinkedIn	http://www.linkedin.com/in/artyomsmirnov
GitHub	https://github.com/artyom-smirnov