Julia Stoyanovich

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Education

09/2004 – currently PhD candidate in Computer Science
Columbia University

09/2003 – 05/2004 MS Computer Science
Columbia University

- ✓ Completed the Masters program in 1 year
- ✓ Fully funded through a Graduate Research Assistantship
- ✓ Software Development Track with concentration in Database Systems
- ✓ GPA: 4.0/4.0

Relevant Courses: Database Systems, Advanced Database Systems, Machine Learning, Advanced Machine Learning, Programming Languages and Translators, Computer Architecture, Probability and Statistics.

09/1995 – 08/1998 BS Computer Science, Mathematics and Statistics
University of Massachusetts, Amherst

- ✓ Graduated magna cum laude
- ✓ Completed the four-year program in 2.5 years
- ✓ Phi Kappa Phi Honor Society
- ✓ Recipient of DuBois Research Scholarship
- ✓ GPA: cumulative 3.7/4.0, Computer Science: 3.7/4.0, Mathematics: 3.9/4.0

Relevant Courses: Software Engineering, Operating Systems, Computer Networks, Combinatorics and Graph Theory, Graph Separators, Theory of Algorithms, Artificial Intelligence, Data Structures, Abstract Analysis, Modern Algebra (2 semesters), Linear Algebra and Applications, Differential Equations, Number Theory.

Publications

"Symmetric Relations and Cardinality Bounded Multisets in Database Systems", K. A. Ross and J. Stoyanovich, Proceedings of the 2004 VLDB Conference, August 2004.

Summary of Professional Qualifications

- ✓ Programming Languages: SQL, PL/SQL, Java, C++, Objective-C, C, PHP3, PHP4, JavaScript, DHTML, Prograph CPX, Shell Scripting, Tcl/Tk, Scheme, LISP, CLOS, Pascal, Assembly
- ✓ Databases: Oracle (10g, 9i, 8i, 7), Sybase, mySQL
- ✓ Operating Systems: UNIX (HP-UX, Sun Solaris, AIX, Linux), MacOS, Windows XP/2000/NT/98/95
- ✓ Development Environments: Actuate e.Reporting Suite, Visual C++ Studio, Rational Rose, ERwin, TOAD, TOra

Professional Experience

08/2001 – 08/2003 Software Developer, Database Developer and Administrator
Encoda Systems, Inc., New York, NY

Technologies used: Oracle 8i, Oracle 9i, SQL, PL/SQL, Java, C, Linux, AIX UNIX, Windows

Encoda Systems is among the leading providers of advertisement industry software solutions. Tasks include large-scale system integration, backend software development, database development and administration, as well as data-driven interactive systems development.

- ✓ Database Development and Tuning: Designed and developed PL/SQL and Java packages for streamlining system distribution and upgrade process. Developed a set of views for customer reports. Tuned reports performance using a variety of Oracle 9i Enterprise Edition features, including stand-by databases, true partitioning and join bitmap indexes.
- ✓ Oracle Administration: Responsible for installation and administration of multiple Oracle 8i Enterprise Edition database instances on the Linux platform (RedHat 6.0 and RedHat 7.1). These databases are primarily used for the purpose of integration between several software solutions.
- ✓ Technical Staff Training Series: Conducted a series of educational sessions for company's technical staff on the subjects of Relational Database Design and the Oracle Platform. Topics included theoretical database concepts, SQL, PL/SQL and the Oracle Java stored procedures.
- ✓ Database Design for the Nielsen Demographic Data: Was instrumental in developing an optimal storage and retrieval model for TV and radio demographic data. The challenge was to store the highly-detailed data in a maintainable fashion that would also be easy to distribute, as well as to enable real-time access for both selective and aggregate queries.

08/2000 – 07/2001 Web and Database Developer
MediaPartnerships, Inc., New York, NY

Technologies used: Oracle 8i, PHP3, PHP4, Java, JavaScript, DHTML, XML, Actuate e.Reporting Suite 4.1, Sun Solaris8.

A key developer of MPAccess: an on-line data-driven software solution designed to manage the sale and purchase of Spot TV advertising. The system makes working with the national Spot TV data more efficient by integrating demographic research, bidding, trafficking and reporting functionality.

- ✓ Bidding (Negotiation) System: Developed and maintained server-side processing, client-side validation, and graphical user interface for the system.
- ✓ Trafficking (Post-negotiation) System: Designed, developed and maintained MPAccess trafficking system. Modeled the database objects and implemented server-side processing, client-side validation, and graphical user interface for the system.
- ✓ Reporting: MPAccess utilized the Actuate e.Reporting suite as a development environment and reporting server for external reports. Set up the environment, designed database layout, developed, maintained and documented all customer reports. Integrated the Actuate e.Reporting Server 4.1 with MPAccess' security model utilizing ReportCast Security Extension. Automated Reports Encyclopedia management using the Reports Server API. Produced both DHTML and XML output to integrate Actuate reports with MPAccess' dataflow and functionality.

- ✓ Concurrency Control: Developed and deployed a concurrency-control mechanism for the two real-time interactive parts of the system: bidding and traffic management.

09/1998 - 08/2000 Database Developer
Juno Online Services, New York, NY

Technologies used: Sybase, C++, Tcl/Tk, Tcl-CGI, JavaScript, Sun Solaris7

Provided full life-cycle support for back-end software and operational tools that comprised Juno's ad system. Was in charge of the entire advertisement-related data processing operation. Juno at that time was a free ISP and had over 1 million active subscribers. The company's business model depended largely on ad-generated revenue.

- ✓ Pre-processing: Individual user statistics and advertisement responses were processed and archived by distributed high-throughput C++ daemons.
- ✓ Post-processing and external reporting: Advertisement responses were accumulated, archived and recorded in the database. Highly customized reports were delivered to the advertisers. This part of the system was implemented by a series of distributed, database-intensive C++ and Tcl daemons.
- ✓ Internal reporting: Reports about user activity and ad response rate were automatically generated and posted to the internal web site. This information was critical to future ad scheduling and distribution.
- ✓ Database performance tuning: Was instrumental in ad system performance tuning, at both database and software levels. Optimized database table layout, stored procedures, static and dynamic SQL queries.
- ✓ Auditing: Implemented auditing procedures and analyzed their results.

09/1997-01/1998 Programmer-Intern
Hewlett-Packard GmbH, Medical Equipment R&D Department
Boeblingen, Germany

Technologies used: C++, Tcl/Tk, Rational Rose, HP-UX, Windows NT

Implemented and maintained a C++ library that supports development and validation tools for internal communications of medical equipment. Carried out cross-platformed development on HP UX / Windows NT. Used Rational Rose modeling tool and Visual C++ Development Studio.

04/1997-09/1997 Programmer
Institut fuer Systemdynamik und Regelungstechnik
University of Stuttgart, Germany

Technologies used: Common LISP, UNIX

Developed an extension to the Emacs cc-mode. Implemented a context-sensitive language mode for Euler, a proprietary C++-like programming language. Worked with Common LISP regular expressions to provide correct indentation and highlighting functionality for the language.

01/1996-03/1997 Programmer
02/1998-08/1998 Center for Knowledge Communication
Computer Science Department, University of Massachusetts, Amherst

Technologies used: Common Lisp Object System (CLOS), Prograph CPX, Java, MacOS

Developed a graphical user interface for an Intelligent Mathematics Tutor. Used Prograph CPX, an object-oriented data-flow language, CLOS, and Java.

- ✓ Engineered an intelligent interface that adopts to the user's preferences and learning style.
- ✓ Implemented object animation utilizing Macintosh low-level animation routines.
- ✓ Carried out research on example generation strategies for the Tutor and implemented those strategies.

09/1996-03/1997 Programmer
Geometry, Analysis, Numerics and Graphics group
Mathematics Department, University of Massachusetts, Amherst

Technologies used: Objective-C, Tcl/Tk ,UNIX

Implemented discrete representation of affine geometry objects, using Mathematica and OOrange packages, a real-time graphical computational system. Used Objective-C and Tcl/Tk to extend functionality of mathematics libraries in the OOrange package.

07/1996-08/1997 Computer Science Teaching Assistant
Science Advancement Program
Mathematics Department, University of Massachusetts, Amherst

Taught 15-year old minority high-school students elementary data structures, Pascal and how to use the Internet.

Languages

Fluent in English, German, Russian, Serbian.

References

Available and will be furnished upon request.