RAKESH VIDYADHARAN

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Skills:

- **Programming**: Java (JSE, JEE), Objective-C, C, C++
- **GUI Development**: AWT, Swing, Echo, Cocoa, iPhone SDK
- **Scripting**: HTML, JavaScript, Oracle PL/SQL, SQL, PL/Pgsql, TCL, Bourne/Korn Shell
- **DBMS**: Oracle 8i/9i/10g, PostgreSQL, MySQL, Java Embedded Databases, Java Object Databases
- **Operating Systems**: AIX 4.x/5.xL, FreeBSD, HP-UX 10.x/11.x, IRIX 5.3/6.x, Linux, Mac OS X, OSF/1, Solaris 2.6/7/8/9/10
- **Platforms**: Apple PPC/x86, DEC Alpha, HP PA-RISC, IBM RS/6000, Intel/AMD, SGI MIPS, Sun UltraSPARC/CoolThread
- **Web Technologies**: Echo, GWT, Google API, Java Servlet and Java Server Pages
- **WebService Technologies**: JSON, REST, SOAP, XML Schema

Awards:

- Diamond Award 2005 - Technology - Awarded by Tribune Media Services (TMS) for excellence in Technology.
- Spotlight Award 2003 - Technology - Awarded by Tribune Media Services (TMS) for excellence in Technology.

Activities:

- Chicago Java User Group (CJUG) President.
- Public speaker on Java technologies.
  - Presentation[1] at CJUG[2] on Echo web application framework.
  - Presentation[3] at CJUG[4] on object databases.
  - Presentation[5] at CJUG[6] and UniForum[7] Chicago[8] on iPhone SDK.
- Creator and lead developer of open-source projects.
  - Lead developer of EchoPoint[9] component library for Echo3 web application framework.
  - Creator and implementer of SPTODB[10] object database engine.
    * Present a JDO type interface for persisting objects using Prevayler.
    * Annotation based indexing and full-text search indexing of persistent objects.
  - Creator and implementer of SPTRWT[11] web based database application. Developed JDBC abstraction layer for use with different presentation frameworks such as Swing, Echo, Wicket etc.

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[1] http://sptci.com/products/articles/Echo2Presentation.pdf
[2] http://www.cjug.org/Wiki.jsp?page=2007.05.15.downtown
[3] http://sptci.com/products/articles/ObjectDatabases.pdf
[4] http://www.cjug.org/Wiki.jsp?page=2008.5.20.downtown
[5] http://sptci.com/products/articles/iPhoneSDK.pdf
[6] http://www.cjug.org/Wiki.jsp?page=2009.02.17.downtown
[7] http://www.uniforum.chi.il.us/meetings/iPhoneSDK.html
[8] http://www.uniforum.chi.il.us/
[9] https://echopoint.dev.java.net/
[10] https://sptodb.dev.java.net/
[11] https://sptrwt.dev.java.net/

- Creator and implementer of SPTWebMail[12] web based e-mail client.
    * Started work on version 2 of the application that uses a new core API based on Lucene indices.
    * Developed Lucene based local mail store for maintaining, message and folder metadata.
    * Use Executor's and Future tasks to automatically synchronize Lucene indices with the mail store.
    * Developed simple rules engine to manage and apply message processing rules.

Experience:

Sans Pareil Technologies, Inc.,   Chicago, IL   January 2006 to Present

President & CEO

Founder, President & CEO of SPT[13]. Currently engaging in the following activities:

- Software product development models and ideas.
- Creator and implementer of open-source projects as listed on products[14] page.
- Developed SPT core API's
    - Core presistence API using JDO and JPA,
    - Annotation based full-text search indexing of persistent objects using Lucene.
    - Annotation and reflection based bi-directional binding framework for applications built using Echo (and potentially Wicket).
- Develop applications for customers.
    - Developed iPhone Sudoku game for Kamicom. Developed game webservice for distributing new Sudoku games and for managing game solution times submitted by users.
    - Developed financial performance analysis software service for analysts of e-commerce websites.
        * Develop Java crawlers to gather sales data from e-commerce websites.
        * Develop web applications for analysts to view the historical sales data, plot and analyse trends.
    - Various Web 2.0 modules for Tribune Media Services using Google API, GWT, Echo, JDO, Lucene and Hibernate.
    - Intranet applications for LSA Studies using Echo and GWT. Developed Terracotta based distributed data storage and access framework for use by all applications.
    - Developed Clinical Leadership Database application for leading Pharmaceutical Industry client of PharmARC.
        * Assisted with gap analysis of existing Key Opinion Leader (KOL) products and defining compelling feature set for presentation of Pharmaceutical company.
        * Created architecture, design and technical specifications documents based upon business requirements.
        * Manage development and testing teams within company tasked with execution of the project.
        * Developed data model and persistence framework for the system using JDO.
        * Developed annotation based framework to automatically full-text index persistent objects using Lucene.
        * Developed data management application for maintaining and updating the database.
    - Developed laboratory resource scheduling system and custom Radius Authentication server for Moraine Valley Community College.
        * Create architecture, design and technical specifications documents for the application.

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[12]https://sptwebmail.dev.java.net/
[13]http://sptci.com/
[14]http://sptci.com/products.jsp

- ∗ Design database and high performance persistence API for the application using SQL/J stored procedures and POJOs.
- ∗ Developed custom FreeRADIUS module to use the application database for authentication and authorisation.

Tribune Media Services,   Chicago, IL   June 2000 to January 2006
Senior Applications Developer/Core Tools

- Developed first version of TMS CoreLib middleware API that is used by all TMS inter/intranet applications for accessing TMS data stores (ODBMS, RDBMS, XML).
- Developed the TV Listings part of the NBC Winter Olympics 2006 site using the new architecture based on an ODBMS.
- Architected, designed and implemented move from a Relational Database Management Ssystem to a Object Database Management Ssystem. The migration resulted in performance increases ranging from 45-200 times that with an RDBMS.
- Architected, designed and developed client side data caching model using a variant of the DAO and Transfer Object patterns and an embedded database to offload load from the central database server.
- Architected, designed and developed a webservice for HP, that provides HP the ability to manage subscriber accounts via a secured communication channel. The webservices also supports direct subscription management functions designed to provide subscribers the ability to modify and manage their subscription.
- Architected, designed and developed the TV listings application and data management applications for NBC Olympics 2004.
- Architected, designed and developed TMS webservice designed to present Movie and TV data in XML format, conforming to schemas developed by TMS. Developed reference Swing clients and client API's to access the webservices.
- Developed the TMS standard XML schemas for TV and Movie related information.
- Architected, designed and developed a webservice for Philips iPronto/ProntoNeo/RC9800i devices. The webservice supports device authentication using HTTP-Digest, device activation, and dynamically generating customised TV Listings in an XML format conforming to the schema specified by Philips.
- Developed coding and documentation standards and application deployment processes.
- Architected, designed and developed the integrated Zap2it Toolkit Application which incorporates an enhanced Movie Toolkit Application (versions 1.0-3.0) and Internet Event Listings Application.
- Designed and developed the Zap2it Data Syndication Application for syndicating Zap2it editorial content in ASCII Text and XML (NewsML DTD) formats using Java 1.3 and the build system developed by Geotechnical Software Services.
- Created Java servlets that generate XML formatted movie editorial articles conforming to the XMLNews specification.
- Converted all SQL code to Oracle PL/SQL stored procedures for the custom movie listings applications.
- Designed the Tribune Media Services Enterprise standard database model that is used by all editorial applications developed by TMS.
- Ported existing movies.zap2it.com web-site from Sybase to Oracle.

Net Quotient Consulting Group,   Chicago, IL   September 1999 to May 2000
Software Developer

- Built a certificate authentication module using JSSE for XpressTrade.

- Built user interface applications and back-end databases using Java and Vignette StoryServer based on functional specifications for New York Life.
- Assisted in creating prototypes and functional specifications for software projects involving New York Life.
- Assisted in developing technical methodologies for engineering solutions to Web-based development problems at Net Quotient.
- Assisted in meeting with client engineering personnel on specifics of projects, new technologies and deadlines.
- UNIX system administrator for the Chicago office.

IMI Systems Inc,   Cincinnati, OH   February 1998 to September 1999
Consultant

- System Analyst, IBM Chicago, February 1999 to September 1999
  Consultant for IBM working at Blue Cross and Blue Shield Illinois. Responsibilities included:
  - Network Analysis. Identified all the UNIX application servers (Solaris 2.5/2.6, AIX 4.3.x) that comprised the Blue Cross and Blue Shield Illinois computing environment.
  - Software Analysis. Identified all software (local and third party) that were installed in the network, as well as all the locally developed databases (Oracle, Sybase, DB/2, Access).
  - Assisted in developing test plans for making sure that all software packages installed in the network were Y2K compliant.
  - Tools Analysis. Analyse and evaluate third party data management and test automation tools such as File-Aid/CS and WinRunner 2000.
  - Database Design. Designed and implemented a Project Tracking database in MS-Access to inventory results of the network and software analysis. Developed forms and reports to present summary of results for project tracking.
  - Project Management. Oversaw Y2K testing efforts for all UNIX hardware and UNIX based software applications and database servers at Blue Cross and Blue Shield.
- Consultant, Convergys Corporation, March 1998 to December 1998
  Y2K testing of the Precedent 2000 - a three-tier client/server Wireless Business Management and Billing system - software package developed by Convergys (formerly Cincinnati Bell Information Systems). Responsibilities included:
  - Java Development (65%):
    * Developed a multi-threaded Java (JDK 1.1.6) application implementing a MDI using JFC (Swing 1.0.2 and Swing 1.1) for the Usage Processing Subsystem of the Precedent 2000 system.
    * Implemented numerous internal windows for viewing log files generated by the Precedent 2000 application.
    * Implemented a SQL editor for users to run their own queries or execute PL/SQL stored procedures, and save queries as menu items. The result set from the database was converted into a table model and presented in spread-sheet format.
  - Y2K Testing (35%):
    * Creating, selecting, editing and executing System and Y2K compliance test cases as they relate to the Key Business Processes and future releases of the Usage Processing Sub-System for Precedent 2000.
    * Develop PERL, OraPERL and Korn-shell scripts for automating repetitive testing tasks.

Certification/Training:
- Architecting and Designing J2EE$^{\text{TM}}$ Applications - April 2004
- XML 2002 Conference/Training - December 2002

- Sun Certified Programmer for the Java 2 Platform - February 2001
- Sun Enterprise Java Beans (EJB) - December 2000

Education:

Iowa State University,   Ames, IA   January 1995 to December 1997
Graduate Student Assistant
MS Mechanical Engineering

- Advanced computer modelling and simulation of a Vuilleumier Heat Pump system using C++ in a UNIX environment (Ultrix, OSF/1, IRIX). Incorporated advanced models of heat exchangers and researched the effect of the irreversibilities introduced into the system by the heat exchangers.
- Developed a Motif GUI application, to execute the program with different operating conditions and different initial conditions.
- Worked with the FORMOSA software package (in FORTRAN) for the Optimisation of Nuclear Fuel Rod Assembly Design in a Boiling Water Reactor. Research into modelling changes required for converting the FORMOSA package which was developed for Pressurised Water Reactors, to work for Boiling Water Reactors.
- Teaching Assistant - Laser Cutting experiments using a Carbon-di-Oxide Laser; Thermal Analysis of the Iowa State University Nuclear Reactor; Experimental analysis of a Refrigerating and Air Conditioning Unit; Experimental analysis of an Axial Flow Fan.