

KAARTHIC SIVASHANMUGAM
s <underscore> kaarthik <at> hotmail <dot> com
http://lsdis.cs.uga.edu/~kaarthik

14416, NE 36th Street, #09
Bellevue, WA, USA 98007
(706) 296-5273 (M)

OBJECTIVE

Software engineering position to design and develop quality software.

EDUCATION

- Master of Science** (Computer Science) Aug 2003
- University of Georgia, Athens, GA, USA.
- Bachelor of Engineering** (Electronics and Communication Engineering) May 2000
- College of Engineering, Guindy, Anna University, Chennai, India.

SOFTWARE DEVELOPMENT EXPERIENCE

Senior Software Engineer, Semagix, Inc., Athens, GA, USA. Nov'05-Jan'06

Release Management: owned build process and coordinated full, bug-fix patch releases of the product *Semantic AML Platform*.

Program Management: coordinated the adoption of agile methodologies in software development process and assisted in project, resource planning.

Research and Development: mentored a team of two interns to research third-party software and develop proto-type applications using them.

Software Engineer, Semagix, Inc., Athens, GA, USA. Aug'03-Oct'05

Semantic AML Screening Server: implemented semantics based anti money laundering platform on which applications can be easily developed for carrying out risk and threat screening checks on individuals and organizations.

- designed and implemented core components of the framework in Java and developed JMX based administrative interfaces
- created and maintained the configuration of Enterprise Service Bus messaging framework named Mule
- created and maintained the configuration of the Spring Application Framework's IoC container
- designed, developed and maintained the data layer using the ORM framework called Hibernate
- developed unit tests using JUnit and DbUnit
- configured and maintained continuous integration framework using CruiseControl
- team size: 10, duration: 5 months

Database Administration: administered SQL Server 2000 databases for development/QA work.

- developed logical data model
- created physical database implementation/maintenance scripts
- performed administrative tasks (user management, backup, profiling and optimization)

Applied Technology Research: carried out applied research to utilize various *Semantic Web* technologies and tools to augment functionalities in the product named *Freedom*.

- evaluated new technologies, tools and proposed usage scenarios
- assisted Product Management in authoring specifications for the new features
- team size: 3, duration: 4 months

Semantic Technology Platform: implemented semantic technology platform, named *Freedom*, for ontology management, metadata extraction and management.

- authored knowledge extractors to read contents from heterogeneous data sources like web pages, documents, databases and populate domain ontologies
- developed GUI using Swing
- developed RMI based task scheduler
- developed command line query and administrative interface using Apache CLI library
- investigated and fixed bugs in the data layer and user interface
- team size: 5, duration: 8 months

Customer and Employee Credentialing Workflow: implemented credentialing application to detect frauds and reduce risks by screening employees and customers for a leading company that provides decision-making information to businesses and government agencies.

- designed and developed a Java framework for asynchronous invocations in the workflow
- developed screening tasks in the workflow
- designed, developed and maintained Hibernate based data layer
- configured and maintained the Spring Application Framework's IoC container
- team size: 10, duration: 3 months

Customer Identification and Risk Assessment: implemented Struts based Web application for a multinational financial organization to detect money-laundering frauds.

- developed persistence layer using JDBC
- developed user management modules
- investigated and fixed bugs in JSPs and data layer
- team size: 15, duration: 8 months

Consultant, Business Intelligence Services Group, **Sonata Software Ltd.**, India. Dec '00-Jul '01

Ad Hoc Querying, Reporting and Analysis: implemented reporting system at Coates of India Ltd.

- interacted with end users and captured business logic
- created *workbooks* using Oracle Discoverer Administration Edition and Oracle relational data warehouse
- team size: 1, duration: 3 months

Sales Reporting: created sales reports from a data mart at Hindustan Lever Ltd, India, to identify important business information that is hidden within the disparate sales data.

- created report templates using Oracle Sales Analyzer using Oracle Express Server as OLAP server
- team size: 5, duration: 3 months

Trainee Systems Analyst, **Sonata Software Ltd.**, India.

Aug '00-Nov '00

Training: received training in Object Oriented Analysis and Design, Quality Assurance, software testing methodologies, Internet technologies and Web application development.

Work Order Management System: developed JSP based proto-type order management application for an online retailer of sports accessories.

- developed action-validation and to-do list maintenance modules
- team size: 7, duration: 2 months

TEACHING EXPERIENCE

Graduate Teaching Assistant, University of Georgia

Aug'01-Jul'03

- taught, administered lab classes and graded projects for a course on Java programming
- taught, tested programming projects and graded assignments for a course on *Data Structures*

PROFESSIONAL CERTIFICATIONS

- Sun Certified Programmer (SCJP) for Java 2 Platform 1.4
- Sun Certified Business Component Developer (SCBCD) for the Java 2 Platform, EE 1.3
- Sun Certified Web Component Developer (SCWCD) for the Java 2 Platform, EE 1.4
- Sun Certified Developer for Java Web Services (SCDJWS)
- Microsoft Certified Professional: Designing and Implementing Databases with Microsoft SQL Server 2000 Enterprise Edition
- Microsoft Certified Professional: Developing and Implementing Windows-based Applications with Microsoft Visual C# .NET and Microsoft Visual Studio .NET

TECHNICAL SKILL SET

- Databases: Oracle 9i, SQL Server 2000/2005, MySQL, HSQLDB
- Operating Systems: Windows-NT/2000/XP, Linux
- Programming Languages: C, C++, Java, C#
- J2EE Framework: JSP, Servlet, Struts, EJB, WebLogic, JBoss, Tomcat
- Unit Testing Frameworks: JUnit, DbUnit
- Project Management: Maven, CruiseControl, CVS, Bugzilla
- Aspect Oriented Programming: JBoss AOP
- Object-Relational Mapping: Hibernate
- IDE: Eclipse, Visual Studio
- Inversion of Control Container: Spring Framework
- JMS: ActiveMQ, OpenJMS
- JMX: JDMK, MX4J
- Enterprise Service Bus: Mule Messaging Framework
- XML: XML Schema, DTD, Xerces, Xalan, XStream
- Web Services: WSDL, UDDI, WS-BPEL, SOAP, OWL-S, Axis, JWSDP
- Semantic Web: RDF, RDFS, OWL, Jena tool kit, Protégé
- Rules Engine: Drools
- Workflow Management: jBPM
- Business Intelligence: Oracle Sales Analyzer, Oracle Discoverer, SQL Server Integration Services
- Other: JXTA, JProbe (Profiler and Memory Debugger), Design Patterns, .NET Framework

PUBLICATIONS

Verma et al., "METEOR-S WSDI: A Scalable Infrastructure of Registries for Semantic Publication and Discovery of Web Services", *Information Technology and Management (ITM)*, Special Issue on Universal Global Integration.

Sivashanmugam et al., "Adding Semantics to Web Services Standards", *Proceedings of the 1st International Conference on Web Services (ICWS'03)*, Las Vegas, Nevada.

Sivashanmugam et al., "Framework for Semantic Web Process Composition", *International Journal of Electronic Commerce (IJEC)*, Special Issue on Semantic Web Services and Their Role in Enterprise Application Integration and E-Commerce.

Sivashanmugam et al., "Metadata and Semantics for Web Services and Processes", *Datenbanken und Informationssysteme*, (Databases and Information Systems) Festschrift zum 60. Praktische Informatik I, Hagen, Germany.

Sivashanmugam et al., "Discovery of Web Services in a Federated Registry Environment", *Proceedings of IEEE International Conference on Web Services*, San Diego.

Oundhakar et al., "Discovery of Web Services in a Multi-Ontology, Federated Registry Environment", *International Journal of Web Services Research*.

MEMBERSHIPS, ACTIVITIES AND OTHER INFORMATION

Member of the International Program Committee (Industrial Track) for NWeSP'06, *International Conference on Next Generation Web Services Practices*, Seoul, Korea.

Member of the International Program Committee (Industrial Track) for NWeSP'05, *International Conference on Next Generation Web Services Practices*, Seoul, Korea.

Additional Reviewer for Web Services Track, WWW2004, *The Thirteenth International World Wide Web Conference*, New York, USA.

Additional Reviewer for Semantic Web Track, WWW2003, *The Twelfth International World Wide Web Conference*, Budapest, Hungary.

External Reviewer for WISE '03, *Fourth International Conference on Web Information Systems Engineering*, Roma, Italy.

Co-author of the initial draft of WSDL-S, a proposal sent to W3C WSDL 2.0 committee for adding semantics to WSDL.

Bringing Agility to Software Development: Gave an invited talk at the IT division of Athens Heart Center on *Agile Development* methodologies and tools focusing on *Extreme Programming* practices like *Test Driven Development*, *Pair Programming*, and *Continuous Integration*.

Visa Status: H1B