

---

## Objective

---

To obtain a challenging research or development position in the area of distributed information systems and internet and Semantic Web technology where I can exercise my technical, analytical and problem solving skills in a great work environment.

---

## Academic Profile

---

<b>Master of Science</b> , Computer Science, University of Georgia, Athens	GPA: 3.82	Graduation: Aug 2005
<b>Bachelor of Science</b> , Computer Science, University of Georgia, Athens	GPA: 3.86	Graduated: May 2002
<b>Bachelor of Arts</b> , Psychology, University of Georgia, Athens		Graduated: Aug 2000

---

## Technical Expertise

---

<b>Languages</b>	J2EE (Servlets, JSP), Java (AWT, JDBC, Swing, RMI), C#, Python, C, C++, Prolog, LISP
<b>Operating Systems</b>	Windows-(XP, Server 2003), Sun Solaris, Unix, Linux
<b>Databases</b>	MySQL, Oracle, SQL Server
<b>Web technologies</b>	XML, JavaScript, HTML, PHP, ASP, XSLT, XPath, Tomcat, Zope, IIS, ASP.NET
<b>Tools/Packages</b>	Eclipse, Visual Studio, Protégé, TopBraid Composer, VB, MS Office, Visio, MS Project, LINDO, Poseidon, UML, Ant, Maven, Checkstyle
<b>Web Services</b>	SOAP, UDDI, WSDL, BPEL
<b>Semantic Web</b>	RDF, DAML+OIL, OWL, RQL, RDFQL, RDF Gateway
<b>Software Engineering</b>	OO design/analysis/development, design patterns, software life-cycle, unified process

---

## Professional Experience

---

**Semantic Solutions Developer (Full-Time), TopQuadrant, Inc.**, Washington, D.C. **Aug' 2005 – present**

- Consult on projects incorporating Semantic Web technologies.
- Develop system ontologies for ontology-driven applications.
- Assist in design and development of software projects conforming to W3C standards for semantic web languages.

**Website Developer (Full-Time), Southern Regional Extension Forestry**, Athens, Georgia **Aug' 2002 – Dec' 2003**

### Content Management System

- Designed and implemented the navigational and search behaviors of the Forestry Encyclopedia Website as well as a content management system involving a complex workflow for the online publication of research articles.
- Designed and implemented the navigational and search behaviors for the Urban Forestry South Website including a content management system for maintaining and updating data on government funded research projects.
- Assisted in the design and implementation of the front-end of the Urban Forestry South Website.
- Acted as project manager and liaison for the Urban Forestry South Website project.

---

## Research Experience

---

**Graduate Research Assistant**, Large Scale Distributed Information Systems Lab, UGA **Jan' 2004 – Aug' 2005**

(Under the direction of Dr. Amit Sheth)

- Implementing an indexing scheme for resources in a live semantic web.
- Designing and implementing a main memory representation of an RDF graph.
- Researching automatic reasoning over an RDF graph utilizing graph algorithms and database technologies.
- Researching calculation of QoS for business process workflows.

---

## Publications

---

**Using hyperdocuments to manage scientific knowledge: the prototype Encyclopedia of Southern Appalachian Forest Ecosystems**; Kennard, Deborah K. ; Rauscher, H. Michael ; Flebbe, Patricia A. ; Schmoldt, Daniel L. ; Hubbard, William G. ; Jordin, J. Bryan; Milnor, William. *Forest ecology and management*. Vol. 207, no. 1-2 (Mar. 2005): p. 201-213

**Constraint Driven Web Service Composition in METEOR-S**; Rohit Aggarwal, Kunal Verma, Amit Sheth, John Miller, Willie Milnor. IEEE International Conference on Services Computing April, 2004

**Using the Zope Web application framework to build and manage a large encyclopedia of scientific knowledge**; Jordin, John, Jr.; Hubbard, William; Kennard, Deborah; Milnor, William; Rauscher, Michael; Veal, Bryan  
Natural resources information management forum: Putting knowledge to work. T. Innes (editor). FORREX-Forest Research Extension Partnership, Kamloops, B.C. FORREX Series No. 8. pp. 135-145. 2003

**The Encyclopedia of Southern Appalachian Forest Ecosystems: A Prototype of an Online Scientific Knowledge Management System;** Kennard, D.K., H.M. Rauscher, P.A. Flebbe, D.L. Schmoltdt, W.G. Hubbard, J.B. Jordin, and W. Milnor. For IUFRO Decision Support and Knowledge Management Conference, Vienna, Austria. CD-ROM proceedings. 2003

**Discovering Informative Connection Subgraphs in Multi-relational Graphs;** Cartic RamaKrishnan, William H. Milnor, Matthew Perry, Amit P. Sheth. SIGKDD Explorations Special Issue on Link Mining, Volume 7, Issue 2, December 2005

## **Projects**

---

### **Semantic Web Processes**

- Implemented a system for calculating the QoS of Web processes for the dynamic binding of Web services. The main feature of the work was in considering domain and application constraints to find compatible Web service sets.
- Designed and implemented a constraint analyzer to determine the optimal compatible Web Services set.

### **Semantic Web Technology Evaluation Ontology (SWETO)**

- Assisted in the development of a large-scale publicly accessible ontology.
- Extracted data from various Web sources using Semagix Freedom Toolkit

### **Semantic Discovery (SemDis)**

- Assisted in the development of an RDF representation for reasoning over semantic associations.
- Developed a Web interface for the Semantic Associations Ranking Demo.

### **Trust and Provenance for SWETO**

- Developing a model for describing and inferring over Trust and Provenance metrics in the SWETO ontology.
- This model would enable users to quantify the amount of trust they can place in a assertion made by some source anywhere on the Semantic Web.

### **WebMaven (team leader)**

- Developing a web based interface to the Maven project management tool from Apache.
- The server side is implemented using Servlets and RMI to access the Maven plugins.

### **TopBraid Ensemble**

- Implementing functionality for a system for collaborative viewing and managing Semantic Web ontologies.
- Developing a subsystem for flexibly building reports of ontologies.
- Maintaining conformance to W3C standards for Semantic Web languages.

## **Open Source Tools**

---

METEOR-S Web service composition tools release (Aug 2004)

WebMaven (May 2005)