

Richard M. Spackmann
<http://www.RichardSpackmann.com>
RichardSpackmann@greenfieldfd.org

Graduate: Rensselaer Polytechnic Institute, Troy, New York Graduated Dec 2003
Masters of Science in Computer Science (GPA: 3.0 / 4.00)

Bachelors: Rensselaer Polytechnic Institute, Troy, New York Graduated May 2001
Bachelors of Science in Computer Science (GPA: 3.3 / 4.00)

Associates: Adirondack Community College, Queensbury, New York Graduated May 1999
Associates of Science in Liberal Arts Math/Science (GPA: 3.4 / 4.00)

Work Experience: **Tribune Media Services** Fall '08 – current
(www.tribunemediaservices.com)

- **Data Direct (www.tmsdatadirect.com):** developer for a variety of projects which utilized a variety of technologies: Web Services, NetBeans, Ant, JMeter, AJAX, Java, Oracle, JBoss Enterprise Application Server, Tomcat Servlet Container, JavaScript, SOAP/ReST/Web Services, MySQL.
- **XTVD Television Schedule Webservice (<http://www.tmsdatadirect.com/docs/tv/>):** a SOAP based webservice which allows customers to download television channel data. This product is responsible for providing data to approximately 30,000+ users on a weekly/monthly basis. Customers include Philips, Schedules Direct, Savant, Archos. Technologies used: JBoss, XML, Java, MySQL, Oracle.
- **Movies Webservice (<http://www.tmsdatadirect.com/docs/movies/>):** a ReST based webservice which allows customers to download movie schedule information for the United States and Canada. Technologies used: Java, Tomcat, MySQL, iBATIS, XML and JMeter. Customers include DoubleClick (Google), Sony, Newsgator, VideoEgg.

Work Experience: **Keane Incorporated (www.keane.com)** Spring '07 – Fall '08

- **New York State Department of Transportation:** lead technical developer for a variety of projects which utilized a variety of technologies: Web Services, AJAX, Java, JMS, Jakarta Struts, Oracle, Oracle Application server (OC4J), JDeveloper IDE, Google Maps API, JavaScript, PL/SQL, SOAP/Web Services, Oracle Warehouse exposure.
- **Cars Google (www3.travelinfony.com/carsgoogle/):** a Google maps application which provides residents of NYS with real-time information reports which include traffic camera images, roadwork, travel speed, weather reports, accidents, road closures, and other pertinent traffic information. Key responsibilities included implementing user preferences functionality (the ability to save system state per user) and implementing a custom Douglas-Peucker algorithm to optimize the rendering of weather information for state roadways.
- **Winter Travel Advisory:** GIS application which reports real-time road conditions (wet, dry, icy, etc.) for state roadways for New York State. Users of the application can view specific roads and view the state of the road.

Work Experience: **GE Global Research Center** Spring '00 – Spring '07

- **DAHWN:** Lockheed Martin shared vision program focused on developing of next generation military network platform anchored with active networking technology. Duties included large-scale network simulation using Java Repast toolkit and design and implementation of a Java active network architecture. Developed an emergence-clustering self-critical-system algorithm, which focused on optimizing service placement of publish-subscribe servers in a given network. Research included packaging network services using OSGI, WSDL, SOA and SOAP architectures.
- **Advanced Network Communication:** Lockheed Martin shared vision program focused on developing next generation military network capabilities. Tasks primarily included development of distributed, scalable and redundant ad hoc network services and a custom network management protocol, which utilized self-critical-system methodology to autonomously configure the management architecture. Network simulations of these custom protocols were accomplished in QualNet. Key researching technologies include mobile ad hoc networking, self-organizing systems, active networking and network management. Team consisted of nearly 15 developers/researchers.
- **VMI (Vendor Managed Inventory):** GE Plastics project focused on remote monitoring of plastic warehouse inventories. Responsibilities included supply-chain design and development of Java Servlets, Oracle database design and web-server programming. Team consisted of 8 developers.

- **NBC WebScheduler:** NBC project focused on digitizing their video feeds through a custom software interface which scheduled video at specified times. This was a three-tier architecture, which featured a Java Applet front end, a Java backend server, and an Oracle database. Skills implemented were database design, UI/Human Factors design and designing an automated testing architecture. Team consisted of 8 developers.
- **Prospect Digitization:** Developed a custom algorithm to detect and extract potential customers for GE Capital from various document corpora. Responsibilities included web interface reporting architecture and custom algorithm development for parsing documents. Custom web-application framework similar to Struts was utilized to create web-platform application. An Oracle database was used as the web-application back-end.
- **Remote Signal Driver Interface:** GE Transportation Systems project focused on designing an intelligent railroad signal that would remove over 50% of trenched cabling and increase reliability. Responsibilities included requirements gathering and evaluation of current networking protocols including PLC, Genius, ProfiBus, Interbus and Ethernet.
- **Next Generation Fire Panel:** GE Fire project focused on determining the networking requirements and demands of their next generation of fire system products. Simulation work was done with the Qualnet simulation software package and Java was used to create a custom topology generation wizard to feed the Qualnet simulation engine.
- **NBC Digital Delivery:** NBC project aimed at studying the potential of using a bit-torrent-like protocol to distribute digital content to subscribers. Simulation work was done using the Rensselaer Optimistic Simulation System (ROSS), a primarily C-code based simulation engine.
- **Future Tactical Trucks System:** Lockheed Martin project focused at developing a custom application to distribute and disseminate network information amongst heterogeneous gateways in an ad hoc network. Implementation was in Java with a custom interface between Lockheed Martin software.

Corporate Training: **GE Global Research Center** Spring '00 – Spring '07

- Six Sigma Green Belt Certification, Behavioral Based Interview Training, Effective Presentation Training, Diversity Training, Sexual Harassment Training

Extra Curricular Activities

Commissioner, Greenfield Fire District Jan 2005 – Current

- Ran a 4 month election campaign for the office of Fire Commissioner in the Greenfield Fire District
- Elected December of 2004 to the five year term
- Duties include representing over 150 firefighters and managing the budget (2007 fiscal year was \$1,244,000) to provide fire protection to over 10,000 residents.
- Experience with New York State Office of General Services (OGS) operations
- Experience with New York State Office of Comptroller operations
- Experience with local government bidding, contract, financing, procurement and operation
- Managed many public meetings and public proposals

Maple Avenue Volunteer Fire Department Jan 1996 - Present

- Active member in good standing all years enrolled, Vice President (1999-2000)
- Extrication Technician and Emergency Medical Technician (EMT)

Computer Science Academic Advisory Council Adirondack Community College April 01 – Current

- Council helps align the computer science/IT curriculum with current industry standards
- Council consists of regional employers and industry representatives that meets annually

Publications

Determining Entity and Event Relationship in Text GE Global Research Technical Document

A common problem in text extraction is to parse a document into its constituent parts such as persons, places, things, actions, etc. We can roughly group these parts of a document into 2 logical groups: entities (nouns or noun phrases) and events (verbs or verb phrases) A higher-order problem is to then make the correct associations between the various entities and events contained in a document. In this paper, we describe our Entity-Relation (E-R) algorithm that addresses the problem of correctly associating entities and events within a document to determine a measure of relevance that the document has per a given set of entities and events.

Self-Organized Management of Mobile Ad hoc Networks

Milcom, October 2006

Mobile ad hoc networks are characterized by low-bandwidth, lossy links and by constant topology change. Traditional network management techniques, which were designed for static wired networks, do not perform well in such environments their rigid framework and polling requirements imposes additional burden on the network. In this paper, we outline the various challenges faced in collecting state and managing mobile ad hoc networks, followed by the requirements of a network management paradigm that addresses these challenges. Finally, we propose an adaptive, self-organizing architecture that addresses the requirements and demonstrate its suitability.

Patents

System for a Dynamic Ad-hoc Wireless Network

United States Patent Application 20040157557
(Awarded)

A system operates a wireless ad hoc network. The system includes a plurality of nodes and a plurality of packets for transmission between the plurality of nodes. The packets contain code for routing the packets between the plurality of nodes. The code adapts to a changing configuration of the plurality of nodes.

Method and System for Identifying and Matching Companies to business Event Information

United States Patent Application 20040034635
(Awarded)

The present invention provides a system, method and computer program product for identifying and matching company names to business event information. A crawler crawls and downloads documents by starting from a pre-defined set of links. A parser breaks down the downloaded documents into components like text, titles and links. An evaluator evaluates the parsed documents and selects documents on the basis of amount of relevant information contained in the documents. An information extractor identifies the occurrences of company names in the text contained in the selected documents. It also identifies occurrences of business events, specified by a pre-defined set of event phrases, in the text contained in the selected documents. Further, the information extractor matches the identified company names to the identified business events in order to generate company-business event pairs.

Teaching Experience

CIS 111 – Computers and Applications

Adirondack Community College Fall 2006 – 2008

An introduction to the terminology and concepts associated with personal computer technology. Computer systems, hardware, software and applications which focus around the personal computer (PC) will be discussed. Hands-on assignments introducing students to computer concepts such as file management, word processing, spreadsheets, databases, slideshows, e-mail, searching the Internet, ftp file transfer, and building and deploying a webpage are included in the course. Taught in a lab setting.