

# Dann Stayskal

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## Profile

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Dann is a versatile interdisciplinary researcher, engineer, and linguist with proven experience and a practical approach to problem solving. He has a rich background in web application development, internationalization and localization, systems and network architecture, natural language processing, mathematical modeling, and security analysis.

## Education

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In progress: Master of Arts in Linguistics  
The University of Texas at Arlington, USA  
Expected Graduation: December 2009.

Bachelor of Arts in Interdisciplinary Studies  
Computational Linguistics and Artificial Intelligence  
The University of Texas at Arlington, USA  
Completed: *summa cum laude*, December 2008.

## Skills and Areas of Focus

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Following each item is a one-to-ten or textual rating of my familiarity and experience.

### Programming, Markup, and Database Languages:

- Perl [8]
- Ruby [7]
- MySQL [6]
- PHP [5]
- C++ [6]
- C# [5] and ASP.Net [4]
- JavaScript [5]
- Python [3]
- XHTML [8]
- CSS [7]
- XML [7] and XSLT [4]
- Shell Scripting [4]

### Platforms and Frameworks:

- Linux [9], Mac OS X [8], and BSD [5]
- Ruby on Rails [8]
- AJAX [6] and DHTML [7]
- Windows / Win32 [4]

### Research and Development Interests:

- Web Application Development [8]
- Natural Language Processing [7]
- Internationalization (i18n) [7] and Localization (l10n) [6]
- Fault-Tolerance [6], Disaster Planning and Recovery [5]
- Neural Networks [7] and Cognitive Process Modeling [5]
- Cryptography [7] and Cryptanalysis [4]
- Penetration Testing and Information Assurance [5]
- Machine Learning and Artificial Intelligence Systems Design [5]
- User Experience and Interface Design [4]

## Professional Experience

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Graduate Research Assistant, University of Texas at Arlington,  
Department of Linguistics and TESOL

Jan 2009 – Present, Arlington, Texas: Designing and implementing software to investigate pitch-accent languages through automatic transcription and vowel-duration measurements. Designing mathematical models of the human vocal apparatus.

Director of Possibilities, Senior Partner of Binary Spring

May 2008 – Present, Remote: Coordinating global network of technical experts for future research and development projects. Adapted a local startup's ASP and C# codebase and design for production.

Director of Operations, Lead Developer, Site Administrator of Everything2.com

Aug. 2005 – Nov. 2008, Remote: Coordinated a volunteer staff to grow one of the world's largest online writing communities. Developed and maintained site's open source codebase. Previously served as a content editor and contributed articles specializing in computing, networking, language, and theology.

Senior Software Engineer, Advanced Systems Division of Elbit Systems of America

Oct. 2005 – May 2008, Fort Worth, Texas: Due to the sensitive nature of defense sector work, some information on this time span is necessarily restricted. Performed information assurance and security certification testing for RF and network systems. Designed and prototyped software, firmware, and hardware for embedded network devices. Wrote and adapted Linux kernel cryptographic modules. Designed user experience and mathematical models for ground and aircraft navigation systems. Led international engineering effort to design, develop, and deploy a country-wide grid network architecture and testing infrastructure. Trained software interns in agile methodologies and secure development practices. Performed statistical analysis and mathematical airflow modeling for rotorcraft systems. Debugged network protocol stack implementations. Authored, designed, reviewed, and edited specifications, manuals, software documentation, and marketing materials.

Senior Systems Engineer, Vice President of Infrastructure for KNSR

May 2005 – Sep 2005, Dallas, Texas: Architected, deployed, and maintained fault-tolerant DNS, web, authentication, mail, database, and provisioning systems for an internet service provider. Developed and deployed wide area wireless network and support systems. Maintained VOIP infrastructure on Cisco hardware.

Senior Software Engineer, Senior Systems Administrator for Superhero Networks

Aug 2003 – May 2005, Mansfield, Texas and Remote: Architected, developed, deployed, and administered turnkey software and systems for internet service provisioning, support ticket management, billing automation, and customer relationship management. Maintained fault-tolerant networks for mail, DNS, authentication, directory services, database support, and support ticket management. Provided third-tier tech support to customers as needed.

Senior Software and Systems Engineer for Comprehensive Consulting  
Mar 2003 – Aug 2003, North Richland Hills, Texas and Remote: Developed applications to manage human resources and web content management in Research and Development division. Setup and maintained routing equipment, coordinated multiple offices to maintain wide area networks across three states.

Software Developer, Network Administrator for American Health Underwriters  
Aug 1999 – Mar 2003, Hurst, Texas: Developed telecommunications interface and control systems. Managed medium-scale network platform migration. Designed, deployed and administered email, web, backup, data warehousing, billing, and quality assurance systems. Maintained hybrid TCP/IP and IPX/SPX network.

### **Volunteer and Independent Contract Work**

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Sep 2005 – Oct 2005, Fort Worth, Texas:  
Adapted and maintained web-based, data-driven failure analysis and corrective action system for a local defense electronics company.

Sep 2004 – Apr 2005, Arlington, Texas:  
Designed, developed, and deployed neural network and genetic algorithm-driven weather, status, demographics, and hotel, car, and airfare tracking, categorization, and prediction model based on a Linux, Apache, MySQL and Perl stack with custom object relational database mapper for a local travel agency.

Jan 2003 – Mar 2005, Anahuac, Chihuahua, Mexico:  
Coordinated and collected donations of computer and network hardware for a children's home in Mexico. Designed and integrated donated parts into educational network. Led transportation and deployment effort in main facility in Mexico. Documented network architecture and provided training to the home's staff.

Oct 2001 – Mar 2002, Boston, Massachusetts:  
Developed eigenspatial biometric facial recognition authentication and access control system for a security company.

### **Academic Research Labs and Groups**

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Speech Rhythm and Prosody Lab, Linguistics Department, University of Texas at Arlington  
June 2008 – Present, under Dr. Jerold Edmondson: Writing speech-to-text parsers to process spoken Spanish, Japanese, Arabic, Chinese, and Choctaw. Writing custom linguistic framework to process lexicon, phonology, and morphophonology of 260 spoken languages. Writing speech recognition routines to syllabify speech stream and extract prosodic suprasegmental features of pitch, duration, and stress.

Dispositional Risk Influence Study, Psychology Department, University of Texas at Arlington  
Sep. 2007 – Present, under Dr. Daniel Levine: Earned Human Subjects Research Compliance certification. Administering weekly study under IRB guidelines.

Rational Decision Making Lab, Psychology Department, University of Texas at Arlington  
Mar 2005 – May 2005, under Dr. Timothy Odegard: Developed game software to evaluate performance on the Iowa Gambling Task.