

1 Delfin  
Aliso Viejo, CA 92656  
(949) 357-6253

atribble@cs.cmu.edu

#### EDUCATION

**Carnegie Mellon University  
Pittsburgh, PA**

M.Sci. in Language Technologies (2002)  
Ph.D. in Language Technologies (expected 2008)

**University of North Carolina at Chapel Hill  
Chapel Hill, NC**

B.Sci. in Mathematical Sciences (2000)  
Computer Science Concentration  
Slavic Linguistics Double Major

#### RESEARCH EXPERIENCE

**Visiting Researcher**

**Tsujii Laboratory, University of Tokyo**

Tokyo, Japan (2006 – 2008)

*GENIA Information Extraction Project*: Revised and validated the structure of the GENIA Ontology for Cellular Biology using knowledge-based text mining experiments implemented in Perl.

**Ph.D. Candidate, Research Assistant**

**Language Technologies Institute at Carnegie Mellon University**

Pittsburgh, PA (2003 – 2006)  
Projected Graduation: 2008

*Scone Knowledge Representation Team* (2004 – 2007): Authored tools in Lisp that build semantic network representations of English input. Delivered a noun compound resolver and a semantic concept spotter used in email classification. Lead a small team that delivered the SconeEdit Ontology Editing Tool (<http://www.cs.cmu.edu/~atribble/SconeEdit/>) using Lisp, Java, and Perl.

*TIDES project* (2003 – 2004): Responsible for training and maintaining the Arabic-English Statistical MT (SMT) system which uses N-gram language modeling and phrase-level alignment models. Implemented algorithm improvements to the system in C++.

**Visiting Researcher**

**Institut für Logik, Komplexität, und Deduktionssysteme, Universität Karlsruhe  
Karlsruhe, Germany (2002 – 2003)**

*TIDES project*: Responsible for the Arabic-English SMT system shared by CMU. Implemented phrase-translation improvements and simple morphological analysis.

*Babylon project*: Ported the Arabic-English SMT system to the medical domain. Supervised one graduate research assistant.

*C-STAR project*: Implemented a web-based system that accepts & evaluates machine translation results for a competition among 7 partner universities. Member of the Steering Committee on Evaluation for the C-Star consortium (<http://www.c-star.org>).

## RESEARCH EXPERIENCE

**M.Sc. Candidate, Research Assistant**  
**Language Technologies Institute at Carnegie Mellon University**  
Pittsburgh, PA (2000 – 2002)

*TIDES project:* Responsible for the Arabic-English SMT system. Coordinated and executed the submission of this system to competitive evaluations. Implemented algorithm improvements. Trained the baseline CMU Example-Based Machine Translation (EBMT) system in Arabic-English and contributed to the maintenance of that system. Managed 3 part-time staff serving as native-speaker informants.

*LingWear project:* Responsible for extending a semantic grammar for English to a new domain (medical interviews). Maintained analysis and generation grammars. Coordinated data collection for system training: recruiting informants, creating scripts with appropriate domain coverage, and managing recording sessions. Prepared the system for demonstrations.

*Other Contributions:* Classified native and non-native speech in recorded text using n-gram phoneme models, co-authored publications on the result. Presented a talk in the faculty-reviewed LTI Student Research Symposium (2003).

## TEACHING &amp; TECHNICAL EXPERIENCE

**Graduate Teaching Assistant**  
**Language Technologies Institute at Carnegie Mellon University**

*Grammars and Lexicons* (Fall 2005)  
Supported the professors of an introductory course in Computational Linguistics. Created homework assignments and solutions and maintained grade reports. Prepared and taught four recitation sessions. Prepared and taught one full lecture (90 minutes).

**Undergraduate Lab Assistant**  
**University of North Carolina at Chapel Hill**

*Comp 14: Introduction to Algorithms and Programming Principles* (Spring 2000)  
Created assignments and solutions. Coordinated efforts of 5 other undergraduate lab assistants and 3 graduate teaching assistants. Taught biweekly help session (60 minutes).

**Computer Services Staff Member**  
**Computer Science Department, University of North Carolina at Chapel Hill**  
Chapel Hill, NC (1999 – 2000)

Solved problems involving email, account access, and file system administration for UNIX and Windows. Contributed HOWTO articles. Revised on-line documentation for CS facilities.

**Scalability Verification Intern**  
**Tivoli Systems (IBM)**  
Research Triangle Park, NC (Summer 1999)

Designed internal web site for distribution of testing information. Installed and configured Tivoli IT management software on a variety of platforms including Windows NT/98/2000, O/S2, Sun and Linux.

## PUBLICATIONS

**Peer-reviewed Conference Papers**

Alicia Tribble, Jin-Dong Kim, Tomoko Ohta and Jun'ichi Tsujii. "A comparison of knowledge resource designs: supporting term-level text annotation" in *Building and evaluating resources for biomedical text mining, Workshop of LREC 2008*. Marrakech, Morocco, 2008.

Alicia Tribble. "Labeling Semantic Relationships in English" in *Doctoral Consortium of HLT/NAACL-2007*. Rochester, NY, 2007.

Alicia Tribble and Scott E. Fahlman. "CMU-AT: Semantic Distance and Background Knowledge for Identifying Semantic Relations" in *SemEval-2007 Workshop of ACL 2007*. Prague, Czech Republic, 2007.

Alicia Tribble and Scott E. Fahlman. "Resolving Noun Compounds With Multi-Use Domain Knowledge". in *Proceedings of The 19th International FLAIRS Conference*. Melbourne Beach, Florida, May 11-13, 2006.

Alicia Tribble, Stephan Vogel, and Alex Waibel. "Overlapping Phrase-level Translation Rules in an SMT Engine". in *Proceedings of NLPKE 2003*. Beijing, China, October 2003.

Stephan Vogel, Alicia Tribble. "Improving Statistical Machine Translation for a Speech-to-Speech Translation Task". in *Proceedings of ICSLP 2002 Workshop on Speech-to-Speech Translation*. Boulder, CO, September 2002.

Tanja Schultz, Qin Jin, Kornel Laskowski, Alicia Tribble, Alex Waibel. "Improvements in Non-Verbal Cue Identification Using Multilingual Phone Strings". in *Proceedings of ACL02 Workshop on Speech-to-Speech Translation*. Philadelphia, PA, July 2002.

Alicia Tribble, Alon Lavie, Lori Levin. "Rapid Adaptive Development of Semantic Analysis Grammars". in *Proceedings of the 9th International Conference of Theoretical and Methodological Issues in Machine Translation (TMI 2002)*. Keihanna, Japan, March 2002.

Tanja Schultz, Qin Jin, Kornel Laskowski, Alicia Tribble, Alex Waibel. "Speaker, Accent, and Language Identification Using Multilingual Phone Strings". in *Proceedings of HLT 2002 Human Language Technology Conference*. San Diego, California, March, 2002.

A. Lavie, L. Levin, T. Schultz, C. Langley, B Han, A. Tribble, D. Gates, D. Wallace, K. Peterson. "Domain Portability in Speech-to-Speech Translation". in *Proceedings of HLT 2001 Human Language Technology Conference*. San Diego, California, March 18-21, 2001.

**Peer-reviewed Posters & Demonstrations**

Alicia Tribble, Benjamin Lambert, and Scott E. Fahlman. "SconeEdit: A Text-Guided Domain Knowledge Editor". in *Demonstration Sessions of HLT-NAACL 2006*. New York, June 5-7, 2006.

Alicia Tribble and Carolyn Rosé. "Usable Browsers for Ontological Knowledge Acquisition". in *Poster Presentations of CHI 2006*. Montréal, Canada, April 22-27, 2006.

**Presentations & Invited Talks**

Alicia Tribble. "Knowledge Acquisition in the Scone Knowledge Representation Project". presentation for *Clairvoyance Corporation*. Pittsburgh, USA, May 2005.

## PUBLICATIONS

**Presentations & Invited Talks**

Alicia Tribble. “Overlapping Phrase-level Translation Rules in an SMT Engine”. presentation for *Student Research Symposium of the Language Technologies Institute*. Pittsburgh, USA, August 2003.

Alicia Tribble. “Automatic Evaluation Metrics for Machine Translation”. presentation for *Annual Meeting of the C-STAR Consortium*. Trento, Italy, December 2002.

Stephan Vogel, Alicia Tribble. “Direct Translation Approaches: Statistical Machine Translation”. presentation for *ESSLI 2002 Workshop on Speech-to-Speech Translation*. Trento, Italy, September 2000.

## TECHNICAL &amp; PROFESSIONAL SKILLS

- **Machine Learning:** Creating and training classifiers for natural language problems
- **Information Retrieval:** Training and running a retrieval engine for a novel search problem, semantic query expansion and reranking
- **Machine Translation:** Grammar writing for unification-based systems; language modeling & alignment modeling, MT evaluation
- **Knowledge Engineering:** Ontology design using Scone and using OWL-DL with Protege
- **Speech Recognition & Synthesis:** Phoneme recognition and language modeling for LVCSR. Building new diphone and unit-selection voices using Festival.
- **Communication:** Authoring scientific articles, oral presentation, team development of systems and software, data collection using human informants
- **Programming:** Perl, Lisp, Java, C++, HTML, JavaScript
- **Platforms:** Windows 98/NT/XP, Unix, Linux (RedHat, Suse)
- **Software:** MS Word, Excel, and PowerPoint; LaTeX, Adobe Photoshop
- **Natural Languages:** German, Spanish, French, Brazilian Portuguese (beginning-intermediate); Russian, Polish (intermediate reader, beginning speaker)

## AWARDS &amp; ASSOCIATIONS

Member, Association for Computational Linguistics (2002 – 2006)  
Graduate Student Assembly Conference Funding Award (2002)  
Member, Steering Committee for Evaluation, C-Star Consortium (2002)

## REFERENCES

Scott E. Fahlman  
Research Professor of Computer Science, Carnegie Mellon University  
sef@cs.cmu.edu (412) 268-2575

Jun'ichi Tsujii  
Professor of Computational Linguistics and Natural Language Processing, University of Tokyo  
Professor of Text Mining, University of Manchester  
tsujii@is.s.u-tokyo.ac.jp +81 03-5841-4098

Eric Nyberg  
Professor of Computer Science, Carnegie Mellon University  
ehn@cs.cmu.edu (412) 268-7281

Carolyn Penstein-Rosé  
Research Computer Scientist, Carnegie Mellon University  
cprose@cs.cmu.edu (412) 268-7130