Tanja Schultz

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EDUCATION:

06/2000 Karlsruhe University Germany PhD Computer Science
05/1995 Karlsruhe University Germany MS Computer Science
11/1989 Heidelberg University Germany MS Sport and Physical Education
07/1989 Heidelberg University Germany MS Mathematics

POSITIONS HELD:

10/2000-present Carnegie Mellon University, LTI Research Associate, Post-doctoral Fellow; key personnel on the **Nespole!** project (speech-to-speech translation of European languages, NSF), **Avenue** (Fast portability of speech processing systems to minority languages), and on the multilingual speech-to-speech translation effort JANUS/C-Star on both, the American (10/2000-present) and the German side (5/1995-9/2000). Primary responsibilities include overseeing the development of the speech recognition components in these and other projects. With a particular area of expertise in language independent and language adaptive acoustic modeling for large continuous speech recognition systems spearhead research on language portability of speech recognition engines. Other academic responsibilities include teaching of a graduate level course on Speech Recognition and Understanding, a graduate-level hands-on practical seminar, as well as co-advising several PhD and Master students, committee member on one PhD dissertation.

5/1995-9/2000 Karlsruhe University Germany, Research Assistant in the Computer Science Department, under the advisement of Prof. Alex Waibel. For PhD dissertation investigated language independent and language adaptive acoustic modeling, developed a large multilingual database **GlobalPhone**. Both efforts result in several refereed publications. Module coordinator in **Verbmobil**, a German BMBF project on face-to-face spontaneously spoken dialogs in three languages. Teaching assistant for Prof. Alex Waibel for an graduate level course on the JANUS speech recognition engine (Fall 1997). Co-advising 10 master thesis and graduate student term projects.

10/1989-4/1995 Karlsruhe University Germany. Student at the Computer Science Department. Conducted Diploma thesis research on automatic language identification under the advisement of Prof. Alex Waibel and Dr. Ivica Rogina, research on modeling speech effects in spontaneously spoken dialogs.

10/1983-10/1989 Heidelberg University Germany. Student at the Mathematic Science Department and at the Department of Physical Education. Conducted Master thesis research on evaluation methods for measuring long-term improvements in physical fitness under the advisement of Prof. Hermann Rieder. Instructor for a graduate level course on Statistical Methods (four in the past), Consultant for several PhD and Master students on Statistical methods.

FIVE MOST RELEVANT PUBLICATIONS:

1. Alon Lavie, Lori Levin, Tanja Schultz, Chad Langley, Ben Han, Alicia Tribble, Donna Gates, Dorcas Wallace, and Kay Peterson: *Domain Portability in Speech-to-Speech Translation.* Proc. Human Language Technology Conference, pp. 82–86, San Diego, CA, March 2001.

2. Tanja Schultz and Alex Waibel: *Language Independent and Language Adaptive Acoustic Modeling for Speech Recognition.* Speech Communication, Volume 35, Issues 1-2, pp. 31–51, August 2001.

3. Susanne Jekat and Tanja Schultz: *Evaluation Sprachverarbeitender Systeme (Evaluation of Speech Processing Systems).* Computerlinguistik und Sprachtechnologie, Spektrum Verlag Heidelberg, Berlin, October 2001.

4. Alex Waibel, Petra Geutner, Laura Mayfield-Tomokiyo, Tanja Schultz, and Monika Woszczyna: *Multilinguality in Speech and Spoken Language Systems.* Proceedings of the IEEE, Special Issue on Spoken Language Processing, Volume 88(8), pp. 1297–1313, 2000.

5. Alex Waibel, Hagen Soltau, Tanja Schultz, Thomas Schaaf, and Florian Metze: *Multilingual Speech Recognition.* Verbmobil: Foundations of Speech-to-Speech Translation, Wolfgang Wahlster (Ed.), Springer Verlag, 2000.

OTHER SELECTED PAPERS AND PUBLICATIONS:

1. Tanja Schultz and Alex Waibel: *Polyphone Decision Tree Specialization for Language Adaptation.* Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP-2000), Istanbul, Turkey, June 2000.

2. Florian Metze, Thomas Kemp, Thomas Schaaf, Tanja Schultz, and Hagen Soltau: *Confidence Measure based Language Identification*, Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP-2000), Istanbul, Turkey, June 2000.

3. Tanja Schultz, Ivica Rogina and Alex Waibel: *LVCSR-based Language Identification*, Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP-1996), pp. 781–784, Atlanta, GA, May 1996.

4. Tanja Schultz and Ivica Rogina: *Acoustic and Language Modeling of Human and Nonhuman Noises for Human-to-Human Spontaneous Speech Recognition.* Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP-1995), Vol. 1 pp. 293–296. Detroit, MI, May 1995.

Summary of students co-advised: From 1995-2000, co-advised 10 Master students. From 2000 to the present, co-advised 1 current PhD student and served on 1 Ph.D. dissertation committee.

LIST OF GRADUATE AND POST-GRADUATE ADVISORS:

Dr. Alex Waibel	School of Computer Science, Carnegie Mellon University
	and Department of Computer Science, Karlsruhe University, Germany
Dr. Ivica Rogina	Department of Computer Science, Karlsruhe University, Germany
Dr. Hermann Rieder	Department of Physical Education, Heidelberg University, Germany