

Alan W Black

University degrees

- 1993** PhD in AI, University of Edinburgh. Thesis title: “A situation theoretic approach to computational semantics”. Supervised by Robin Cooper and Graeme Ritchie.
1986 MSc in Knowledge Based Systems in the Dept of AI, University of Edinburgh,
1984 BSc (first class honours) in Computer Science at Coventry University, England.

Appointments

- 7/03** - Associate Research Professor, LTI, Carnegie Mellon University.
9/99 - **6/03** Research Computer Scientist (Faculty), LTI, Carnegie Mellon University.
4/96 - **6-99** Research Fellow, CSTR, University of Edinburgh. Statistical language processing for TTS.
4/93 - **3/96** Invited Researcher, ATR, Kyoto. CHATR speech synthesis system.
10/89 - **3/93** PhD Student. Dept of AI, Edinburgh. Computational semantics.
10/88 - **10/89** Research Associate. CSTR, Edinburgh. Language modeling for ASR.
10/87 - **9/88** Visiting Researcher. Osaka University of Foreign Studies (learning Japanese) and Kyoto University, Prof. Nagao’s Laboratory.
7/84 - **10/87** Research Associate. Department of Artificial Intelligence, University of Edinburgh. Morphological analysis.

Selected publications

Alan W Black has authored or co-authored over 140 refereed papers, all papers (where copyright permits) are available from <http://www.cs.cmu.edu/~awb/>

- [1] T. Schultz, A. W Black, S. Badaskar, M. Hornyak, and J. Kominek, “SPICE: Web-based Tools for Rapid Language Adaptation in Speech Processing Systems”, Interspeech, Antwerp, Belgium, August 2007.
- [2] Black, A. (2006), “CLUSTERGEN: A Statistical Parametric Synthesizer using Trajectory Modeling”, Interspeech 2006 - ICSLP, Pittsburgh, PA.
- [3] Raux, A., Bohus, D., Langner, B., Black, A., and Eskenazi, M. (2006) “Doing Research on a Deployed Spoken Dialogue System: One Year of Let’s Go! Experience” Interspeech 2006 - ICSLP, Pittsburgh, PA.
- [4] Prahallad, K, Black, A. and Mosur, R. (2006) “Sub-Phonetic Modeling for Capturing Pronunciation Variation in Conversational Speech Synthesis”, ICASSP2006, Toulouse, France.
- [5] Black, A., and Tokuda, K., (2005) “Blizzard Challenge – 2005: Evaluating corpus-based speech synthesis on common datasets”, Interspeech 2005, Lisbon, Portugal.
- [6] Black, A, and Lenzo, K, (2000) “Building Synthetic Voices” <http://festvox.org>
- [7] Black, A., Taylor, P. and Caley, R. 1999 “The Festival Speech Synthesis System.” <http://festvox.org/festival/>.
- [8] Black, A. and Taylor, P. 1997. “Automatically clustering similar units for unit selection in speech synthesis” Proceedings of Eurospeech97, vol2 pp 601-604, Rhodes, Greece.

- [9] Hunt, A. and Black, A. 1996. "Unit selection in a concatenative speech synthesis system using a large speech database" ICASSP 96, vol 1, pp 374-376, Atlanta, GA.

Synergistic Activities

Dr Black continues as a principal developer of University of Edinburgh's Festival Speech Synthesis System. Festival is distributed as free software and is now used by most researchers in speech synthesis, and is the basis of many commercial systems. Festival made the barrier of entry to speech synthesis lower and has helped make the subject more accessible. The FestVox (<http://festvox.org>) project and CMU Flite (<http://cmuflite.org>) further add to Dr Black's contribution to the speech research and development community offering tools to build new synthetic voices in new languages and delivery on small platforms. Dr Black releases code, scripts, database, notes and slides for his work which is used as a basis for a number of other speech courses throughout the world. Dr Black also is involved with Spoken Dialog Systems and Speech-to-Speech Translation systems.

Dr Black served on the IEEE Signal Processing Society Speech Technical Committee 2004-2007, and is an elected board member of the International Speech Communication Association. He has acted as area chair for Speech Synthesis ICASSP (2004-2007), program chair for the 5th ISCA Workshop on Speech Synthesis, and General co-chair for Interspeech 2006 – ICSLP in Pittsburgh, 2006. With Prof Tokuda (NITECH) he started the annual Blizzard Challenge, the first multi-site, corpus based synthesis evaluation. He is on the editorial board for Speech Communications.

Collaborators

Antonio Bonafonte, (University Polytechnic Catalonia), Robert Clark, (University of Edinburgh), Maxine Eskenazi, (CMU), Robert Frederking, (CMU), Julia Hirschberg, (Columbia), Simon King, (University of Edinburgh), Kristen Precoda, (SRI International), Alex Rudnicky, (CMU), Jan van Santen, (Oregon Health & Science University), Tanja Schultz, (CMU/U. Karlsruhe), Noah Smith, (CMU), Richard Sproat, (University of Illinois at Urbana-Champaign), Richard Stern, (CMU), Paul Taylor, (Cambridge University), Tomoki Toda, (Nara Advanced Institute of Science and Technology), Keiichi Tokuda, (Nagoya Institute of Technology), Stephan Vogel, (CMU), Alex Waibel, (CMU), Monika Wozyczyna (Multimodal Inc).

Advisees

Current: Arthur Toth, CMU PhD. John Kominek, CMU PhD. Tina Bennett, CMU PhD. SP Kishore, CMU PhD. Brian Langner, CMU PhD.

Graduated: Tina Bennett, CMU MLT (graduated 2003, now CMU PhD candidate), Ariadna Font Llitjós, CMU MLT (graduated 2001, now CMU PhD candidate), Craig Olinsky, CMU MLT (graduated 2001, now RA Media Lab, Dublin), Tomoki Toda, CMU postdoc 2003-2004, (now faculty at NAIST, Japan), Jason Zhang, CMU MLT, (graduated 2004, now grad student at JHU).