

Sanjeev P. Khudanpur

Associate Professor

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Professional Preparation

Indian Institute of Technology Bombay 400 076. India	Electrical Engineering	Bachelor of Technology, 1988.
University of Maryland College Park, MD 20740.	Electrical Engineering	Doctor of Philosophy, 1997.

Appointments

Associate Professor	Jul 2008 - present
Assistant Professor	Jul 2001 – Jun 2008
Department of Electrical & Computer Engineering (primary appointment) and Department of Computer Science (joint appointment) The Johns Hopkins University, Baltimore, MD.	
Associate Research Scientist	Jan 1996 - Jun 2001
Center for Language and Speech Processing The Johns Hopkins University, Baltimore, MD.	
Visiting Faculty	Sept - Dec 2000
Institute for Mathematics and its Applications University of Minnesota, Minneapolis, MN.	
Summer Preprofessional	Jun - Sep 1994
Human Language Technology Group IBM T. J. Watson Research Center, Yorktown Heights, NY.	

Related Publications

- [1] S. Khudanpur and J. Wu, “Maximum Entropy Techniques for Exploiting Syntactic, Semantic and Collocational Dependencies in Language Modeling,” in *Computer Speech and Language*, **14**:355-372, Oct 2000.
- [2] *Mathematical Foundations of Speech and Language Processing*, M. Johnson, S. Khudanpur, M. Ostendorf and R. Rosenfeld (Editors), IMA Volumes in Mathematics and Its Applications, Volume **138**, Springer-Verlag, New York, Jan 2004.
- [3] S. Khudanpur and W. Kim, “Contemporaneous Text as Side Information in Statistical Language Modeling,” in *Computer Speech and Language*, **18**:143-162, Apr 2004.
- [4] B. Jedynek and S. Khudanpur, “Maximum Likelihood Set for Estimating a Probability Mass Function,” in *Neural Computation*, **17**:1508-1530, Jul 2005.
- [5] S. Khudanpur, “Multilingual Language Modeling,” in *Multilingual Speech Processing*, pp 169-205, K. Kirchoff and T. Schultz (Editors), Elsevier, 2006.

Other Publications

- [1] J. Wu and S. Khudanpur, "Combining Nonlocal Syntactic and N-gram Dependencies in Language Modeling," in *Proceedings of the 6th European Conference on Speech Communication and Technology*, 5:2179-2182, Sep 1999. (**ELSNET Best Student Paper Award.**)
- [2] Y. Deng and S. Khudanpur, "Latent Semantic Information in Maximum Entropy Language Models for Conversational Speech Recognition," in *Human Language Technology Conference of the North American Chapter of the Association for Computational Linguistics: Proceedings of the Main Conference*, pages 56-63, Edmonton, Canada, May 2003.
- [3] W. Kim and S. Khudanpur, "Cross-Lingual Lexical Triggers in Statistical Language Modeling," in *Proceedings of the 2003 Conference on Empirical Methods in Natural Language Processing*, pages 17-24, Sapporo, Japan, Jul 2003. (Nominated for **Best Paper Award.**)
- [4] A. Ghoshal and S. Khudanpur, "Source Adaptation for Improved Content-Based Video Retrieval," in *Proceedings of the IEEE International Conference on Acoustics Speech and Signal Processing, II:133-136*, May 2006. (**ICASSP'06 Best Student Paper Award.**)
- [5] B. Varadarajan, S. Khudanpur and E. Dupoux, "Unsupervised Learning of Acoustic Subword Units," in *Proceedings of the 46th Annual Meeting of the Association for Computational Linguistics, Short Papers (Companion Volume)*, pages 165-168, Columbus, OH, Jun 2008.

Synergistic Activities

- Organizing the annual JHU Summer School in Human Language Technology, with NSF and NAACL co-sponsorship. See most recent one at <http://www.clsp.jhu.edu/workshops/index.php>
- Organized two week-long workshops to familiarize mathematicians with human language technology (HLT). Identified fundamental underlying problems and formulated specific mathematical problems whose solutions will advance the state of the art. Studied recent advances in mathematics that may be relevant to HLT research. Facilitated discussions, exchange of ideas and collaboration between mathematicians and HLT practitioners. See <http://www.ima.umn.edu/multimedia/fall/m1.html> and <http://www.ima.umn.edu/multimedia/fall/m3.html>
- Successfully mentored minority (African American) students in engineering within a program sponsored by the Office of Graduate Minority Affairs at the University of Maryland, College Park.

Collaborators and Other Affiliations

Collaborators: (excluding co-authors listed above and colleagues at Johns Hopkins University)

James Baker (Sandboxscribe)	Jan Hajic (Charles Univ.)	Dietrich Klakow (Saarland)
Lukas Burget (Univ. Brno)	Martin Jansche (Google)	Michael Riley (Google)
Eugene Charniak (Brown)	Mark Johnson (Brown)	Salim Roukos (IBM).

Graduate and Postdoctoral Advisors:

Prakash Narayan	University of Maryland	Doctoral Dissertation Advisor
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Thesis Advisor and Postgraduate-Scholar Sponsor: (including all advisees to date)

Murat Saraçlar	Bogazici University, Turkey	Doctoral Advisee
Jun Wu	Google Inc., Mountain View, CA	Doctoral Advisee
Woosung Kim	Convergys Inc., Cincinnati, OH	Doctoral Advisee
Arnab Ghoshal	Saarland University, Germany	Doctoral Advisee