

Sample Cover Letter for an Advertised Faculty Position

Position is a joint appointment.

Candidate's Address
Date

Professor Name, Search Committee Chair
c/o Ms. Name
Computer Science Department
Major Research University
Address

Dear Professor Name and Members of the Search Committee:

I am delighted to apply for Major Research University's joint faculty position in linguistics and computer science. Achieving breadth and depth in both these fields has been my consistent goal at the wonderfully interdisciplinary University of X, where I am currently completing my Ph.D. in computational linguistics. I publish regularly in both communities, have taken most of the course offerings of both departments at University of X, and am sensitive in my work to the concerns and methods of both disciplines. Your departments in linguistics and CS are top-notch; I would welcome the opportunity to continue my research and teaching among the excellent graduate students, undergraduates, and faculty there.

My dissertation concerns the representation and acquisition of lexicalized probabilistic grammars, which pay particular attention to the interplay of specific words. In previous work, particularly 1994 -1996, I showed that such grammars yielded 93% accuracy on the crucial task of parsing ambiguous, real-world text (*The Wall Street Journal*). I also sped up the associated parsing algorithm from $O(n^5)$ to $O(n^3)$. My dissertation expands probabilistic grammars to recognize, for the first time, their *transformational* structure. It shows how to *learn* that structure by generalizing automatically from a limited set of examples. The generalization technique uses a Bayesian graphical model that is motivated by long-standing concerns of linguistics.

My other major contribution has been in phonology. The new framework in linguistics (since 1993) is that pronunciations arise in part from the interaction of language-specific constraints. This begs the large linguistic question, "What kinds of constraints are possible in human language, and what representations do they constrain?" I have proposed a concrete, formal answer that is clean and well-supported by the linguistic data. Furthermore, I have proved several theorems about the formal power of the resulting system, designed and implemented exact algorithms for discrete optimization over the infinitely many possible pronunciations, and proved a lower bound on the complexity of such algorithms.

My other interests include the application of natural-language processing techniques to the Internet. All this work is described in the enclosed research statement. I am also sending sample course descriptions. You will find further research and evidence of successful teaching listed on my CV, and all my papers and abstracts are available at <http://www.cs.ux.edu/~name>.

The following computational linguists have agreed to serve as references:

- Prof. Name, Computer Science and Linguistics, U. of X, name@x.edu
- Prof. Name, Linguistics and Computer Science, U. of X, name@x.edu
- Prof. Name, Linguistics, University of Y, name@y.edu
- Dr. Name, ABC Labs Research, name@abc.com
- Dr. Name, Major Microsystems Laboratories, name@mml.com

Thank you for your consideration.

Sincerely,

Jared Researcher

Source: Heiberger, Mary Morris, and Julia Miller Vick. *The Academic Job Search Handbook*, 3rd edition. Philadelphia: University of Pennsylvania Press, 2001.