

Nathan C. Sanders

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EDUCATION

PhD Linguistics, Indiana University, expected 2009

MA Computational Linguistics, Indiana University, 2006, GPA 3.98

BA Computer Science; minors in French and Spanish, College of the Ozarks, summa cum laude May 2004

QUALIFICATIONS

Programming languages: Python, Scheme, Java, Common Lisp, and HTML.

Background in Perl, OCaml/F#, Javascript, Visual Basic.NET, Visual Basic 6, and C++.

Web programming experience in multiple languages and frameworks.

Three-time competitor in the ACM International Collegiate Programming Contest.

Academic interests in language distance measures and phonological learning algorithms.

ACADEMIC HONORS

ACM/SIGCSE Student Research Finalist, 2004

National Dean's List, 2004

National Merit Scholarship Finalist, 2000

EXPERIENCE

August 2005–Present Research Assistant, IU School of Medicine — Investigate linguistic aspects of cochlear implant user development, especially in phonology and computational linguistics. (See for example http://www.sandersn.com/dialect_distance.zip)

May 2005–August 2005 Application Developer, IU Archives of Traditional Music — Wrote Java application to gather cataloguing data for videos. Worked with librarians and ethnomusicologists to gather archival metadata requirements.

August 2004–August 2005 Web Programmer, IU Overseas Studies — Maintained database and its web interface. Developed new features on request and maintained office computers.

Summer 2004, Summer 2003 Lead Programmer, Everyware Inc — Implemented web framework for interactive site building. Rewrote existing plug-in architecture and extended existing interface.

Summer 2002 Intern Programmer, SIL International — Programmed import process for translation editor in C++, with a pre-processor in Python.

Spring 2001–Spring 2004 Lab Assistant, College of the Ozarks Foreign Language Lab — Tutored students in Spanish and French. Maintained lab computers and created tracking databases.

PUBLICATIONS

Sanders, Nathan. Compiler Error Detection Techniques Applied to Natural Language Processing. *The Proceedings of the Thirty-fifth SIGCSE Technical Symposium on Computer Science Education*. Association for Computing Machinery. (2004), p. 515

INTERESTS

- Measures of linguistic distance
- Computational phonology, especially phonological learning algorithms
- Programming language theory
- Natural language's relation to machine language