

# Curriculum Vitae: Nathan Schneider

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## ACADEMIC INTERESTS

- **Computational Linguistics and Natural Language Processing**
- Cognitive Linguistics (morphology, syntax, and semantics)

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## EDUCATION

Language Technologies Institute,  
School of Computer Science,  
**Carnegie Mellon University**

August 2008 – Present

Ph.D. Candidate

Studying statistical natural language processing

Advisor: Noah Smith

### **University of California, Berkeley**

August 2004 – May 2008

B.A. with High Honors; Double Major in Computer Science (with Honors), Linguistics

GPA: 3.83 (4.0 scale)

Courses include:

Statistical Natural Language Processing

Statistical Machine Learning

Syntax & Semantics

Phonetics

Comparative & Historical Linguistics

The Mind & Language

Neural Basis of Thought & Language

Artificial Intelligence

Efficient Algorithms & Intractable Problems

Programming Languages & Compilers

Phonology & Morphology

Hebrew, Arabic, & French

Advanced Cognitive Linguistics

Seminar on the Neural Theory of Language

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## SELECTED RESEARCH

### **Honors Thesis: Hebrew Verb Morphology and Embodied Construction Grammar**

Fall 2007 – Spring 2008

- Developed a construction grammar analysis of the Hebrew verbal system, based in part on previous work in cognitive linguistics. Worked with Jerome Feldman to formalize my findings in Embodied Construction Grammar (ECG), which allows for computational analysis and simulation. Implemented the requisite enhancements to the formalism as an ECG morphological parser.

## **Metonymy Recognition**

Spring 2007

- Worked with Srinu Narayanan on automated metonymy recognition, and developed a classifier based on previous work on metaphor recognition. I hope to continue this work next semester to explore semi-supervised classification techniques for metonymy.

## **Statistical News Analysis**

Spring 2007

- Worked with Laurent El Ghaoui on statistical analysis of news data—in the form of newswire corpora and voting records for a single session of Congress—as part of the Undergraduate Research Apprenticeship Program.

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## CONFERENCE PRESENTATIONS

### **Society of Linguistics Undergraduate Students (SLUGS) Symposium**

November 18, 2007, UC Berkeley

“Stealing, sneaking, and smuggling: Towards a constructional account of Hebrew verb morphology”

- Discussion of ongoing work on the verbal system in Modern Hebrew

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## SERVICE

### **CS 182 Reader**

Spring 2008

### **CS 61A Lab Assistant**

Spring 2006

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## HONORS

### **Phi Beta Kappa**

### **Computer Science Faculty Commendation**

May 2008

- One of a handful of graduates recognized by a faculty member for achievement in the major

### **Computer Science Honors Program**

Fall 2007 – Spring 2008

### **Graduation with High Honors, College of Letters & Sciences**

May 2008

### **Dean's List, College of Letters & Sciences**

Spring 2006 & Fall 2006

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## TECHNICAL SKILLS

- *Programming Languages:* Java, C, C++, C#, Python, Scheme; some Visual Basic
- *Web Development:* HTML, CSS, JavaScript/DHTML/AJAX, PHP; some JSP, ASP/VBScript
- *Data Storage:* MySQL and Microsoft Access databases, XML
- *Applications:* Eclipse IDE, Emacs, Macromedia Flash, Adobe Photoshop
- *Operating Systems:* Windows and Unix (Solaris) systems experience

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## WORK EXPERIENCE

### **Software Development Intern, Microsoft Corporation**

May 22, 2007 – August 10, 2007, Redmond

- As an intern in the Office Sharepoint Search group, worked on designing and implementing a new feature for the next version of Office
  - Identified goals for the feature and drafted a specification explaining how it would improve usability
  - Built a working prototype and developed an algorithm to produce the best results
  - Drafted a design specification detailing how it would fit into the codebase
  - Completed the core implementation of the algorithm in C++, as well as most of the necessary database interactions
  - Participated in usability and design review sessions for other aspects of the product

### **Software Intern, Convergys Corporation**

June 12, 2006 – August 18, 2006, Cincinnati

- Involved in various aspects of the planning, development, and testing phases of customizations of a Java web application
  - Assisted in determining requirements and creating a prototype for one project
  - Directed system testing for another project, and adapted some JSP pages to fit requirements
  - Listened in on discussions with clients

### **Web Consulting for the California College Democrats**

August 2005

- Development of a simple content management system for websites

### **Volunteer for Jewish Federation of Cincinnati**

2001–2004

- Web design, including work using Macromedia Flash

### **Software Intern, CAD Centric Systems, Incorporated**

June 9, 2003 – July 18, 2003

- Web design work, including use of Macromedia Flash



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## EXTRACURRICULAR ACTIVITIES

### **IT Director, Society of Linguistics Undergraduate Students**

Fall 2007 – Spring 2008; Member since Fall 2005

- Helped coordinate annual linguistics symposium, other club activities

### **IT Director, Cal Berkeley Democrats** (Fall 2004 – Spring 2007)

### **Managing Editor & IT Director, Cal Democrats student magazine** (Fall 2005 – Spring 2006)

- Initiated and facilitated a weekly discussion group for political issues
- Regular web development work using HTML, CSS, JavaScript, PHP, XML, and MySQL
- Other communications responsibilities such as writing and editing articles and announcements, as well as managing mailing lists and organizational information
- Undertook a major documentation effort for Cal Democrats
- Worked on a weekly basis with other officers to plan activities and projects

### **Web Design & Development for the DeCal (Student-Initiated Education) Program**

November 2004 – September 2005

- Developed a PHP/MySQL application to store and display course information; assisted in reorganizing website content