

Kristen Parton

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EDUCATION

Ph.D. Program, Computer Science, **Columbia University** 9/2006 – Present
M.S., Computer Science, **Columbia University** 6/2008
B.S., Computer Science, **Stanford University** 6/2003

EXPERIENCE

Columbia University, Research Assistant, Professor Kathleen McKeown 9/2006 – Present

- Designed a system for cross-lingual information retrieval (CLIR) that leverages simultaneous search in multiple languages against jointly indexed documents to improve result relevance.
- Developed a machine translation (MT) post-editing module for question answering that uses word alignments and CLIR results to improve readability and comprehensibility of translated answers.
- Implemented a syntax-based sentence simplifier to rewrite English sentences into shorter sentences.

Google, Inc., Intern Summer 2008

- Proposed, designed and implemented a translation feature that launched on maps.google.com. When cross-lingual reviews appear, a “Translate reviews” link enables a user to read reviews in his or her language.
- Investigated cross-lingual sentiment analysis for local reviews.

Yahoo! Inc., Intern 1/2006 – 8/2006

- Developed a prototype for Japanese-English cross-lingual image search.
- Implemented a system for mining the web to find parallel, multilingual text.

Stottler Henke Associates, Inc., AI Software Engineer 1/2004 – 1/2006

- Lead software engineer for EarthTutor, an adaptive, interactive intelligent tutoring system for earth science.
- Software engineer for Operator Machine Interface Assistant, a training program for the Navy helicopter interfaces. Met with Navy clients to do knowledge elicitation. Managed summer interns.

Center for Language and Speech Processing (Johns Hopkins University), Research Assistant Summer 2002

- Worked on the “Generation in the Context of Machine Translation” team. Implemented modules to insert punctuation and generate surface morphology for English words.

Stanford University, Research Assistant, Professor Christopher Manning 3/2001 – 6/2002

- Developed improvements for Kirrkirr, a dictionary visualization program used by Warlpiri speakers in Australia. Implemented a morphological analyzer to facilitate word lookup for the Warlpiri language.

MISCELLANEOUS

- Awards: NSF Graduate Research Fellowship, Intel Women in Science and Engineering Scholarship
- Languages: intermediate Spanish, French, Russian; beginning Modern Standard Arabic (2 years).
- Programming Languages: Java, C/C++, JavaScript, Perl.

SELECTED PUBLICATIONS

Parton, K., K. McKeown, J. Allan and E. Henestroza. “Simultaneous Multilingual Search for Translingual Information Retrieval.” Conference on Information and Knowledge Management, 2008.

Hajic, J., M. Cmejrek, B. Dorr, Y. Ding, J. Eisner, D. Gildea, T. Koo, K. Parton, G. Penn, D. Radev, and O. Rambow. Natural Language Generation in the Context of Machine Translation, Summer Workshop Final Report, Center for Language and Speech Processing, Johns Hopkins University, Baltimore, 2002.

Manning, C. and K. Parton. “Kirkkirk: A flexible and approachable software interface to indigenous dictionaries,” Institute for Research in Cognitive Science Workshop on Linguistic Databases Conference, 2001.