Laurel Hart
Computational Linguist

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Education

2013—2014 **Master of Science in Computational Linguistics**,
University of Washington, Seattle, WA.
- Completed intensive, graduate-level program in 1 year
- Focused on Natural Language Processing (NLP), Machine Learning (ML), and language modeling
  - Specific topics included Machine Translation, Information Retrieval, and Question Answering

2009—2013 **Bachelor of Arts in Applied Linguistics**, *Portland State University*, Portland, OR.
- Minor in Computer Science
- Honors College, undergraduate thesis: "The Linguistics of Sentiment Analysis" (see Publications)

Experience

2014 **Research Assistant**, *University of Washington - CSE*, Seattle, WA.
- Designed and implemented Java training data pipeline for multi-linguistic relation extraction system
- Worked with large corpora:
  - Gigaword English, Spanish, and Chinese corpora: over 9 million documents
  - Freebase: currently over 2 billion facts
- Utilized Stanford's CoreNLP package for tokenization, Named Entity Recognition, parsing, etc.

Winter and Summer 2012 **NLP Intern**, *BCL Technologies*, San Jose, CA.
- Conducted research on Semantic Role Labeling for Modern Standard Arabic
  - Authored demonstration paper published in *Proceedings of COLING 2012* (see Publications)
  - Created annotated linguistic data
- Wrote grant proposals, company awarded $80,000 SBIR toward Multilingual Author Identification
- Other research areas: text summarization, spoken language identification, financial data extraction

2011—2013 **Library Technology Assistant**, *Portland State University*, Portland, OR.
- Team Lead of five-person student IT team March, 2013 — June, 2013
  - Coordinated student workers to ensure lab support coverage
  - Created training materials for new hires and oversaw training
- Provided support for staff and student technologies at the University's Millar Library
  - 90 Windows PCs, 36 Windows laptops, 4 Macs, 3 Ricoh printers, 3 scanners

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Technical skills & selected projects

Languages Python, Java, C++

Tools NLTK, Mallet, Stanford CoreNLP, Lucene, Maven, Git, Bash, LaTeX

ML kNN, Decision Trees, Naïve Bayes, MaxEnt, and SVM (Python)

NLP HMM-based Part-of-Speech tagger, Word Sense Disambiguation system, CKY parser, tokenization, Context Free Grammars incorporating features and semantic representations

Current Promptbot: an IRC bot for writers; used upwards of 40 users across 2 networks (Python, ongoing)

Recent Training pipeline for a semi-supervised multilingual relation extraction system (Java); product review sentiment analysis research (Python)

Publications

2013 Hart, Laurel, "**The Linguistics of Sentiment Analysis**" Portland State University *PDX Scholar*. 2013. http://pdxscholar.library.pdx.edu/honorstheses/20

2012 Hart, Laurel, Hassan Alam and Aman Kumar, "**Revisiting Arabic Semantic Role Labeling using SVM Kernel Methods**" *Proceedings of COLING 2012*. December, 2012: 207—14. http://aclweb.org/anthology//C/C12/C12-3026.pdf