# Laurel Goodhart

## Software Engineer & Computational Linguist

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### **Experience**

- 2019—2021 Senior Software Engineer, Primed, San Francisco, CA / remote.
  - o Conversation design
  - 2018 Natural Language Processing Specialist, Woebot Labs, Inc., San Francisco, CA.
    - o Improved Natural Language Understanding in the Woebot mental health chatbot
      - Created data collection and annotation strategy
      - Trained, evaluated, and deployed language models for classification
    - o Applied expertise in chatbot conversational design to existing product
      - Identified common pitfalls and suggested and implemented solutions
      - Conducted analysis of how natural language understanding issues affect retention during app onboarding
    - o Assisted in creation of new chatbot authoring environment for use by non-technical users
- 2015—2017 Artificial Intelligence Engineer, PullString, Inc. (formerly ToyTalk, Inc.), San Francisco, CA.
  - $\circ~$  Worked on PullString Author, a software platform for authoring human-fidelity AI conversation
  - o Designed, implemented, and improved Natural Language Processing features
    - Features included negation detection, number conversion, user and author input normalization
  - o Established large-scale testing to support data-driven decision-making
  - o Collaborated with technical and non-technical peers on product features
    - Expressive word/pattern matching syntax for use by non-technical users
    - Natural Language Processing and Machine Learning -based synonym and phrase suggestion

#### Education

- 2018 Deep Learning Specialization, deeplearning.ai, Coursera.
  - Self-motivated continuing education
  - o 5 courses: Neural Networks and Deep Learning; Improving Deep Neural Networks; Structuring Machine Learning Projects; Convolutional Neural Networks; Sequence Models
- 2013—2014 Professional Master of Science in Computational Linguistics,

University of Washington, Seattle, WA.

- o Completed intensive, graduate-level program in 1 year
- o 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.
  - o Minor in Computer Science
  - o Honors College, undergraduate thesis: "The Linguistics of Sentiment Analysis"

## Technical skills & selected projects

- 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
- Languages Python, C++, Java
  - Tools Jupyter, FastText, TensorFlow, NLTK, spaCy, Stanford CoreNLP, Git, Mercurial, Bash, LATEX

#### **Publications**

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