Jeffrey Lund

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Education

In progress Ph.D. in Computer Science, Brigham Young University
Anticipated graduation: August 2018
Dissertation: Fine-Grained Topic Models Using Anchor Methods

M.S. in Computer Science, Brigham Young University
Graduated: December 2015   GPA: 4.0
Thesis: Fast Inference for Interactive Models of Text

B.S. in Computer Science, Brigham Young University
Graduated: Magna Cum Laude April 2011   GPA: 3.9
Minor: Mathematics

Relevant Graduate Coursework: Natural Language Processing, Bayesian Statistics, Machine Learning, Artificial Intelligence, Data Mining, Deep Learning

Languages and Tools

Python, Go, C++, Java
Git, Unix toolchain

Experience

Research Assistant, BYU Applied Machine Learning Lab   Sept 2011 - Present
- Organized and led topic modeling group at BYU
- Implemented novel interactive topic models for document classification
- Taught CS 142 Introduction to Computer Programming

Engineering Intern, Google Inc.   April 2015 - June 2015
- Improved accuracy of DoubleClick conversion rate prediction by integrating topic-based signals from Rephil into prediction pipeline
- Demonstrated bid optimization improvements using topic-based conversion rate prediction

Engineering Intern, Google Inc.   May 2013 - Aug 2013
- Worked on Rephil team, which is a web scale noisy-OR based topic model
- Added to suite of tools used by Rephil team for model comparison
- Designed and implemented methodology for automatically detecting harmful model updates in incrementally trained Rephil models

Intern, LucidChart Inc.   May 2012 - Aug 2012
- Designed and implemented high volume automated mailing services
- Implemented notification system which delivers alerts from critical services

Edison Identification Intern, GE Energy   May 2011 - Aug 2011
- Enhanced capabilities of entity modeling framework, used in various diagnostic tools for large turbines
- Rewrote entity model serialization, greatly improving performance at the core of the GE Energy framework

Research Assistant, BYU Natural Language Processing Lab   Sept 2010 - Apr 2011
- Implemented various visualizations of topic models for Topical Browser

Teaching Assistant, Algorithm Analysis   Jan 2011 - Apr 2011
  • Helped students understand various algorithms used in class projects

Teaching Assistant, Artificial Intelligence   Sept 2010 - Dec 2010
  • Mentored students by teaching help sessions and consulting with project teams

Student Programmer, BYU Print and Mail   Sept 2008 - Aug 2010
  • Implemented automated order placement, tracking and billing system

Publications   Jeffrey Lund, Stephen Cowley, Wilson Fearn, Emily Hales and Kevin Seppi. Labeled Anchors and a Scalable, Transparent, and Interactive Classifier. Empirical Methods in Natural Language Processing, 2018

Jeffrey Lund and Yiu-Kai Ng. Movie Recommendations Using a Deep Learning Approach. International Conference on Information Reuse and Integration, 2018

Jeffrey Lund, Connor Cook, Kevin Seppi and Jordan Boyd-Graber. Tandem Anchoring: A Multiword Anchor Approach for Interactive Topic Modeling. Association for Computational Linguistics, 2017

Yu Lu, Jeffrey Lund and Jordan Boyd-Graber. Why ADAGRAD Fails for Online Topic Modeling. Empirical Methods in Natural Language Processing, 2017

Jeffrey Lund, Chace Ashcroft, Andrew McNabb and Kevin Seppi. Mrs: High Performance MapReduce for Iterative and Asynchronous Algorithms in Python. Python for High-Performance and Scientific Computing, 2016

Jeffrey Lund, Paul Felt, Kevin Seppi and Eric Ringger. Fast Inference for Interactive Models of Text. International Conference on Computational Linguistics, 2016

Thang Nguyen, Jordan Boyd-Graber, Jeffrey Lund, Kevin Seppi and Eric Ringger. Is Your Anchor Going Up or Down? Fast and Accurate Supervised Topic Models. North American Association for Computational Linguistics, 2015

Andrew McNabb, Jeffrey Lund and Kevin Seppi. Mrs: MapReduce for Scientific Computing in Python. Python for High-Performance and Scientific Computing, 2012

Matthew Gardner, Joshua Lutes, Jeffrey Lund, Joshua Hansen, Daniel Walker, Eric Ringger and Kevin Seppi. The Topic Browser: An Interactive Tool for Browsing Topic Models. NIPS Workshop on Challenges of Data Visualization, 2010