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Alice Lai

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Education

Ph.D. Computer Science, University of Illinois at Urbana-Champaign — 2012 – 2018 (Expected)

Natural Language Processing and Machine Learning
Thesis: Textual Entailment from Image Caption Denotations
Advisor: Julia Hockenmaier
Committee: Katrin Erk, Dan Roth, ChengXiang Zhai

B.S. Computer Science, B.A. Japanese, University of Pittsburgh — 2008 – 2012

Work Experience

Research Assistant, University of Illinois — 2012 – Present

- Developed models to explore the effectiveness of different semantic representations, achieving competitive performance on downstream tasks like textual entailment and sentence similarity
- Implemented and maintained a relational database to store a structured graph of image caption information

Research Intern, Grammarly — Sept 2017 – Dec 2017

- Collected the first dataset for real-world text coherence across multiple genres
- Designed and tested annotation guidelines, and managed annotators throughout the data collection process
- Reimplemented previous coherence models and analyzed their performance on new real-world coherence task
- Developed new paragraph-aware neural network model of text coherence

Teaching Assistant, Machine Learning, University of Illinois — Aug 2016 – Dec 2016

- Assisted individual students in understanding the course material in weekly office hours
- Helped develop content for weekly discussion sections of 10-20 students
- Wrote homework assignments, weekly quizzes, exam questions, and grading rubrics

Product Search Software Development Intern, A9 — May 2016 – Aug 2016

- Developed annotation guidelines and labeled data to map queries to a knowledge base
- Developed text features and wrote production code to extract these features from queries
- Analyzed accuracy and efficiency of features and implemented pruning strategies to improve performance

Publications

Alice Lai, Yonatan Bisk, and Julia Hockenmaier. **Natural Language Inference from Multiple Premises.** *International Joint Conference on Natural Language Processing, 2017.*

Alice Lai and Julia Hockenmaier. **Learning to Predict Denotational Probabilities For Modeling Entailment.** *European Chapter of the Association for Computational Linguistics, 2017.*

Alice Lai and Julia Hockenmaier. **Illinois-LH: A Denotational and Distributional Approach to Semantics.** *International Workshop on Semantic Evaluation (SemEval), 2014.*

Peter Young, Alice Lai, Micah Hodosh, and Julia Hockenmaier. **From image description to visual denotations: New similarity metrics for semantic inference over event descriptions.** *Transactions of the Association for Computational Linguistics Vol. 2, 2014.*

Awards

National Science Foundation Graduate Research Fellowship — 2012 – 2015

Yahoo! Grace Hopper Celebration Scholarship — 2013

Skills

Primary programming languages: Python, Java
Implemented models using deep learning libraries: PyTorch, Tensorflow
Familiar with NLP toolkits, including Stanford CoreNLP, OpenNLP, NLTK

Service/Organizations

Artificial Intelligence Seminar Organizer, University of Illinois 2015 – Present
- Coordinated with professors and students to schedule visiting speakers to the department

Secretary & Website Manager, UIUC Graduate Society of Women Engineers 2015 – 2017
- Coordinated with committee members to send weekly newsletter, maintained website of upcoming events