

Jeffrey Ling

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EDUCATION

Harvard University

Cambridge, MA

B.A. Computer Science & Mathematics, *magna cum laude with highest honors*

May 2017

- Thesis: Coarse-to-Fine Attention Models for Document Summarization. Awarded highest honors by CS department.
- GPA: 3.92 / 4.0

EXPERIENCE

Vicarious AI

San Francisco Bay Area, CA

Research Engineer

August 2017 - present

- Working on intelligent robotics/vision systems at a well-funded AI research startup.
- Collaborating directly with PhDs on machine learning research projects.

Harvard Natural Language Processing

Cambridge, MA

Research Assistant; Prof. Alexander (Sasha) Rush

Fall 2015 - Spring 2017

- Senior thesis project - independent research project on applying sparse attention methods to sequence-to-sequence neural network models for scalable document summarization. Published in EMNLP 2017 Workshop on New Frontiers in Summarization.
- Wrote open source software for a convolutional neural network for sentence classification using Torch, a deep learning framework.

Google

Mountain View, CA

Software Engineering Intern, Google Translate

Summer 2015

- Developed a discriminative model for predicting word alignments, a critical step in the machine translation pipeline.
- Engineered features and raised word alignment evaluation metric from 76% accuracy to over 90%.

Software Engineering Intern, Gmail

Summer 2014

- Developed an experimental machine learning tool for Gmail's backend to predict when a user will be online.

Teaching at Harvard University

Cambridge, MA

Undergraduate Teaching Fellow

2015-2017

- CS 181 (Machine Learning), Stat 110 (Introduction to Probability Theory), CS 124 (Data Structures and Algorithms), Math 23a (Introduction to Linear Algebra and Real Analysis).
- Held office hours, wrote problems and section notes, taught course-wide sections and review sessions.
- Awarded Bok Center Certificate of Distinction in Teaching for CS 181 and CS 124.

PUBLICATIONS

- Jeffrey Ling, Rachit Singh, and Finale Doshi-Velez. Structured variational autoencoders for Beta-Bernoulli processes. In NIPS Workshop for Advances in Approximate Bayesian Inference, 2017.
- Jeffrey Ling and Alexander M. Rush. Coarse-to-fine attention models for document summarization. In Proceedings of the Workshop on New Frontiers in Summarization at EMNLP, pages 33-42, 2017.
- Yuntian Deng, Anssi Kanervisto, Jeffrey Ling, and Alexander M. Rush. Image-to-markup generation with coarse-to-fine attention. In International Conference on Machine Learning, pages 980-989, 2017.

TECHNICAL SKILLS

Languages - C/C++, Python, Lua, HTML/CSS/Javascript, L^AT_EX

Frameworks/Technologies - ROS, Torch, PyTorch, TensorFlow, Vim, Git, Django

LEADERSHIP

Harvard Taekwondo

Cambridge, MA

Co-President

2015-2016

- Organize tournament logistics and belt tests, delegate tasks, lead practices, coordinate with instructors.

AWARDS

Herchel-Smith Harvard Undergraduate Research Fellowship - most prestigious summer research fellowship (2016)

Silver Medalist at International Linguistics Olympiad (IOL) - 2013

Math Olympiad Summer Program - top 50 students on the USAMO are invited (2011, 2012)

SKILLS AND INTERESTS

Languages - Chinese (fluent)

Interests - Taekwondo, Ultimate Frisbee, Basketball, Music