

# Jay Whang

<http://jaywhang.com>

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## Education

- **Stanford University** – M.S. in Computer Science 2017 – 2019
- **University of Southern California** – B.S. in Computer Science, B.A. in Mathematics 2010 – 2014  
– Cumulative GPA: 3.83/4.0 (*Magna Cum Laude*)

## Research Experience

- Buffered Stochastic Variational Inference** Aug. 2018 – Dec. 2018
  - Improved training strategy for VAEs based on a generalization of the evidence lower bound.
  - The 22nd International Conference on Artificial Intelligence and Statistics (AISTATS), 2019. [\[paper\]](#)
- Strategic Object Oriented RL** with Prof. Emma Brunskill at Stanford Dec. 2017 – June 2018
  - Strategic exploration through optimistic planning under uncertainty in model-based RL.
  - The 35th International Conference on Machine Learning (ICML) Workshop on Exploration in RL, 2018. [\[paper\]](#)
- Batch Normalization for RNN** at Stanford Spring 2016
  - Investigated ways to apply Batch Normalization to LSTM and GRU cells [\[report\]](#)
- Constituency Parsing** with Prof. Kenji Sagae at USC Sept. 2012 – May 2013
  - Improved shift-reduce constituency parsing with early pruning of the search tree.
- Ramsey Number Bounds** with Prof. Wayne Hayes at UC Irvine Summer 2009
  - Ran a distributed search over circulant graphs to tighten lower bounds on some Ramsey Numbers.

## Work Experience

- DeepMind** – Research Engineer Intern Summer 2018
  - Investigated ways to improve sampling and training speed of WaveNet with progressive training.
- YouTube** – Software Engineer Dec. 2014 – July 2017
  - Trained and productionized various classifiers for detecting abusive videos and users.
  - Wrote a real-time data processing backend pipeline for aggregating user activities on YouTube.
- Facebook** – Software Engineer Intern Summer 2014
  - Designed and implemented a physics-based layout engine for contextual dialog boxes in JavaScript.
- Microsoft** – Software Development Engineer Intern Summer 2012
  - Created a web UI for remote configuration and deployment of Windows 8 on bare metal machines.
- Microsoft** – Software Development Engineer in Test Intern Summer 2011
  - Designed and implemented functional and stress tests for a cluster manager on Windows HPC.

## Teaching Experience

- Stanford University**
  - CS 234: Reinforcement Learning by Prof. Emma Brunskill Winter 2018
  - CS 230: Deep Learning by Prof. Andrew Ng Spring & Fall 2018
  - CS 224N: NLP with Deep Learning by Prof. Richard Socher Winter 2017
  - CS 148: Computer Graphics by Prof. Ron Fedkiw Fall 2017
- University of Southern California**
  - CSCI 103: Introduction to Programming by Prof. Mark Redekopp Fall 2013
  - CSCI 271: Discrete Mathematics by Prof. David Kempe Spring 2013

## Awards and Recognition

- Member of Phi Beta Kappa National Honor Society (PBK) 2013 – Present
- USC Presidential Scholarship, a merit-based half-tuition scholarship 2010 – 2014
- Three-time USA Mathematics Olympiad (USAMO) qualifier 2007 – 2009
- Mathematical Olympiad Summer Program (MOSP) participant 2007