

Christopher Wang

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EDUCATION

Massachusetts Institute of Technology

Cambridge, MA

Master of Engineering in Electrical Engineering and Computer Science - GPA 5.0/5.0

June 2019 – Sep. 2020

- Thesis: Weakly Supervised Semantic Parsing for Linear Temporal Logic

Massachusetts Institute of Technology

Cambridge, MA

Bachelor of Science, majors in Computer Science and Math - GPA 4.9/5.0

Sep. 2015 – June 2019

PUBLICATIONS

- [1] **Christopher Wang**, Candace Ross, Yen-Ling Kuo, Boris Katz, and Andrei Barbu. “Learning a natural-language to LTL executable semantic parser for grounded robotics”. In: *Conference on Robotic Learning* (2020).
- [2] Andrei Barbu, David Mayo, Julian Alverio, William Luo, **Christopher Wang**, Dan Gutfreund, Josh Tenenbaum, and Boris Katz. “Objectnet: A large-scale bias-controlled dataset for pushing the limits of object recognition models”. In: *Advances in Neural Information Processing Systems* (2019), pp. 9453–9463.

EXPERIENCE

Graduate Research Assistant

Jan 2019 – Present

InfoLab at MIT CSAIL; Professor Boris Katz

Cambridge, MA

- Built a neural semantic parser to generate Linear Temporal Logic formulas from natural language; explored effects and benefits of weak-supervision during training [1]
- Worked collaboratively on ObjectNet: A challenging test-set to push the performance of object detectors [2]
 - * Helped collect a 50k image test-set that controls for biases typically found in other datasets
 - * Fine-tuned existing classifiers such as ResNet to show a performance drop on our test set
- Compiled a dataset of paraphrases in order to improve the natural language capabilities of START, a QA system.

Undergraduate Researcher

June-Sep 2018

MIT Computational Fabrication Group at MIT CSAIL; Dr. Adriana Schulz

Cambridge, MA

- Modified a C++ program for inverse design so that it could be run on a variety of domains
- Created a test suite to demonstrate the program’s capabilities to end users

Research and Development Intern

June-Aug 2017

VMware

Palo Alto, CA

- Developed a web front-end to visualize compute-cluster performance data
- Worked closely with end-users to determine the most effective tools for troubleshooting performance issues

Web Development Intern

Jan 2017

Brain Power

Cambridge, MA

- Added various features to the product’s website such as email verification and QR code generation. Also helped integrate the website with the company’s google glass application

Undergraduate Researcher

June-Aug 2016

Institute for Data, Systems, and Society; Dr. Sae-Yun Kwon

Cambridge, MA

- Created a comprehensive database of rice mercury levels and built interactive visualizations for public outreach online

Independent Study

Oct 2014 - May 2015

Oklahoma School of Science and Mathematics

Oklahoma City, OK

- Determined the efficiency of various multiprocessor scheduling algorithms.

Student Researcher

June - Aug 2013

Research Science Institute; Professor Martin Rinard

Cambridge, MA

- Modified Java code and ran benchmarks to determine the accuracy which parallel algorithms could achieve when certain mutual exclusion conditions were relaxed

PROJECTS

- 6.148 Web Programming Competition Jan 2016
- Used Meteor, MongoDB, and D3.js to build “Graffiti,” a web-app which allows users to post disappearing messages to an unstructured message board
 - Won 2-nd place in the Rookie Division
- Hack MIT Sep 2016
- Built “Clippd,” a web-app which utilizes IBM Watson to automatically create cut and paste video supercuts

ACTIVITIES/AWARDS

- Grader for Computer Systems Engineering Feb - June 2019
- Eta Kappa Nu Honor Society 2019
- Tutor in Discrete Math Sept - Dec 2018
- President Chao Nee Memorial Scholarship 2017
- Business Manager: *The Tech* Student Newspaper Sept 2015 - Jan 2019
- Corresponded with clients and managed advertising sales, totaling over \$90,000 annually
 - Handled *The Tech*'s budgeting, accounting, and payment

TECHNICAL SKILLS

Programming/AI/ML: Java, Python, C/C++, PyTorch, Keras
Web: JavaScript, HTML/CSS, Angular, Node.js, MongoDB
Misc: LaTeX, bash, git