

# Christopher Wang

405-818-7839 | czw@mit.edu | czlwang.github.io

## EDUCATION

---

### Massachusetts Institute of Technology

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

Cambridge, MA

*June 2019 – Sep. 2020*

- Thesis: Weakly Supervised Semantic Parsing for Linear Temporal Logic

### Massachusetts Institute of Technology

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

Cambridge, MA

*Sep. 2015 – June 2019*

## PUBLICATIONS

---

- [1] **Christopher Wang**, Vighnesh Subramaniam, Adam Uri Yaari, Gabriel Kreiman, Boris Katz, Ignacio Cases, and Andrei Barbu. “BrainBERT: Self-supervised representation learning for intracranial recordings”. In: *International Conference on Learning Representations* (2023).
- [2] **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).
- [3] 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).

## EXPERIENCE

---

### Graduate Research Assistant

*InfoLab at MIT CSAIL. Professor Boris Katz*

Jan 2019 – Present

*Cambridge, MA*

- Supervised an undergraduate research project on building environments for training grounded language models
- Co-organized the ObjectNet challenge, in which teams compete to build better systems for object recognition
- Built a neural semantic parser to generate Linear Temporal Logic formulas from natural language and explored effects and benefits of weak-supervision during training [2]
- Worked collaboratively on ObjectNet: A challenging test-set to push the performance of object detectors [3]
  - \* Helped collect a 50k image test-set with bias-control for background, rotation, and viewpoint
- Compiled a dataset of paraphrases in order to improve the natural language capabilities of START, a QA system.

### Undergraduate Researcher

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

June-Sep 2018

*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

*VMware*

June-Aug 2017

*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

*Brain Power*

Jan 2017

*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

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

June-Aug 2016

*Cambridge, MA*

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

### Independent Study

*Oklahoma School of Science and Mathematics*

Oct 2014 - May 2015

*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

---

Student at Brains, Minds & Machines Summer Course (hosted by CBMM)

Aug 2022

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

## SERVICE

---

Reviewer for ICLR 2022, 2023; NeurIPS 2021, 2022; ICML 2023

## TECHNICAL SKILLS

---

**Programming:** Java, Python, C/C++, Haskell, Julia

**AI/ML:** PyTorch, Keras, HuggingFace

**Web:** JavaScript, HTML/CSS, Angular, Node.js, MongoDB

**Misc:** LaTeX, bash, git