

Catherine Wong

catwong@mit.edu

<https://web.mit.edu/zyzzyva/www/academic.html>

Education

- 2018- Massachusetts Institute of Technology
Ph.D. in Brain and Cognitive Science
Adviser: Joshua Tenenbaum
- 2018 Stanford University
M.S. in Computer Science
- 2017 Stanford University
B.A. in Computer Science *with Honors*, Minor in Creative Writing
Academic Adviser: Dan Jurafsky
Thesis Adviser: Sebastian Thrun
Thesis: “Feature-Conditioned Neural Network Pre-training for Skin Cancer Classification”

Employment

- 2018 Research Assistant, Stanford Computational Vision and Geometry Lab
- 2017 Software Engineering Intern, Google Research Zurich
- 2017 Research Assistant, Thrun Lab at Stanford
- 2016 Software Engineering Intern, Flatiron Health
- 2015 Software Engineering Intern, Palantir Philanthropy
- 2015 Software Engineering Intern, Google Classroom
- 2014 Software Engineering Intern, Google[x]

Honors

- 2021 MIT, Walle Nauta Award for Excellence in Undergraduate Teaching
- 2018 MIT, Singleton Presidential Graduate Fellowship
- 2017 Stanford, Siebel Scholar
- 2017 Stanford, Wegbreit Prize for best undergraduate honors thesis in CS
- 2017 Stanford, Terman Engineering Award (Top 5% Engineering)
- 2016 Tau Beta Pi Engineering Honor Society
- 2014 Stanford President’s Award for Academic Excellence
- 2013 Intel Science Talent Search National Finalist
- 2012 Research Science Institute Scholar

Selected Publications

- 2021 C. Wong, K. Ellis, J. Andreas, J. Tenenbaum, “Leveraging language to learn program abstractions and search heuristics”. *ICML*.
- 2021 K. Ellis, C. Wong, M. Nye, et. al, “DreamCoder: bootstrapping inductive program synthesis with wake-sleep library learning.” *PLDI*.

- 2021 C. Wong, Y. Friedman, J. Andreas, J. Tenenbaum. “Language as a bootstrap for compositional visual reasoning.” *CogSci*.
- 2021 G. Ecanow, C. Wong, S. Acquaviva, et. al. “Core knowledge objects in reasoning and language use for highly abstract inductive tasks.” *CogSci*.
- 2021 S. Acquaviva, Y. Pu, M. Kryven, C. Wong, et. al. “Communicating natural programs to humans and machines.” *Preprint, ArXiv*.
- 2020 C. Wong, K. Ellis, J. Andreas, J. Tenenbaum, “Natural language for program search and abstraction learning”. *AAAI Symposium on Conceptual Abstraction (oral)*
- 2020 S. Acquaviva, Y. Pu, C. Wong, et. al, “Concept grounding of ARC with iterated human communications”, *AAAI Symposium on Conceptual Abstraction*.
- 2019 C. Wong, K. Ellis, M. Sablé-Meyer, J. Tenenbaum, “Modeling expertise with neurally-guided Bayesian program induction”. *CogSci*.
- 2019 J. Gauthier*, J. Loula*, E. Pollock*, T. Wilson*, C. Wong*, “From mental representations to neural codes: a multi-level approach”. *Behavioral Brain Sciences (BBS)*.
- 2018 C. Wong, N. Houlsby, Y. Lu, A. Gesmundo. “Transfer learning with AutoML”. *NeurIPS*.
- 2015 JF. Regan, N. Kamitaki, T. Legler, S. Cooper, N. Klitgord, G. Karlin-Neumann, C. Wong, S. Hodges, R. Koehler, S. Tzonev, and S. McCarroll. “A rapid molecular approach for chromosomal phasing”. *PLOS One*.
- 2012 C. Wong. “Cell-phone compatible wireless stethoscope.” U.S. Patent Application No. 13/326,927.

* Indicates equal contribution.

Teaching

- 2020 Teaching Assistant, Computational Cognitive Science, MIT
- 2019 Teaching Assistant, Topics in Infant and Early Childhood Cognition, MIT

Professional Service

- 2020- Institute Committee on Race and Diversity, MIT
- 2019- Brain and Cognitive Sciences Philosophy Circle, Co-organizer, MIT
- 2020
- 2016 Engineers for a Sustainable World, Ghana Hermio Project Team Lead, Stanford
- 2015 Engineers for a Sustainable World, Medic Mobile Project Team Lead, Stanford

Et Cetera

- 2018 “Latitudes”, serial audio documentary about biking across America in 2018.
- 2017 Stanford Arts Grant, “Undocumented”, multimedia installation on American visa applications.

Languages: English (Native), Spanish (Fluent), Cantonese (Mostly movies)