Catherine Wong

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Education

2018-Present **Massachusetts Institute of Technology** (Cambridge, MA)
Ph.D Brain and Cognitive Science

2013-2017 **Stanford University** (Stanford, CA)
M.S. Computer Science, Artificial Intelligence Concentration; GPA: 4.105
B.S. Computer Science with Honors, Artificial Intelligence Concentration
Minor: Creative Writing; Cumulative GPA: 4.045

Computational Research Experience

2018-Present **Computational Cognitive Science Lab**, MIT
Ongoing work on natural language understanding and Bayesian program induction.

2017 **Google Applied Machine Intelligence**, Zurich, Software Engineering Intern
Reinforcement learning for automated neural network model generation.
Published at NeurIPS 2018.

2017-2018 **Computational Vision and Geometry Lab**, Stanford University
Fast semantic segmentation and point cloud object detection; supervised by Silvio Saverese.

2016-2017 **Thrun Lab**, Stanford University
Deep learning for classification and retrieval of skin cancer and skin lesion images.
Awarded best undergraduate honors thesis — work on GAN and CNN-based pretraining.

2014-2015 **General Surgery Department**, Stanford University
Developed automated surgical instrument tracking on Android for mobile-phone based laparoscopy under Dr. Vivian de Ruijter. *Patents pending* based on design.

Industry Experience

2016 **Flatiron Health**, New York, Software Engineering Intern
Implemented a machine learning framework for data analysis on the Value Based Care team.

2015 **Palantir Philanthropy Engineering**, Palo Alto, Forward Deployed Engineering Intern
Full-stack development for Homelink, a secure platform for nonprofits and cities to match veterans and the chronic homeless with subsidized housing.

2015 **Google Classroom**, New York, Software Engineering Intern.
Android and C++ graphics development to improve the Google Expeditions VR platform for classrooms. Implemented a feature for the Google Classroom Android application.

2014 **Google[x]**, Mountain View, Software Engineering Intern.
Implemented a feature to improve voice interactions and menu control for Google Glass. Prototyped additional experimental features to sync Glass and mobile devices.

Selected Honors

2018 Singleton Presidential Graduate Fellowship, MIT
2017 Siebel Scholar, Stanford University

Ben Wegbreit Prize for Best Undergraduate Honors Thesis, Computer Science
Frederick E. Terman Engineering Scholastic Award

2016 Tau Beta Pi Engineering Honor Society
2015 Haas Center Undergraduate Fellow
2014 Stanford President's Award for Academic Excellence
2013 Intel Science Talent Search National Finalist
2012 Research Science Institute Scholar

Selected Publications and Patents

2019 *From mental representations to neural codes: a multi-level approach*, forthcoming, BBS.
J. Gauthier, J. Loula, E. Pollock, T.B. Wilson, C.Wong, all equivalent contributors.

2019 *Modeling Expertise with Neurally-Guided Bayesian Program Induction,* CogSci 2019.
C.Wong, K. Ellis, M. Sablé-Meyer, J. Tenenbaum

2018 *Transfer Learning with Neural AutoML,* NeurIPS 2018
C.Wong, N. Houlsby, Y. Lu, A. Gesmundo.

2017 *Feature-Conditioned Neural Network Pre-training for Skin Cancer Classification*
Best Undergraduate Honors Thesis, Stanford Computer Science Department
C.Wong, A. Esteva, S. Thrun

2015 *A Rapid Molecular Approach for Chromosomal Phasing*, PLOS One
JF. Regan, N. Kamitaki, T. Legler, S. Cooper, N. Klitgord, G. Karlin-Neumann, C. Wong, S. Hodges, R. Koehler, S. Tzonev, and S. McCarroll.

2012 *Cell-phone compatible wireless stethoscope.*
U.S. Patent Application No. 13/326,927.
C. Wong.

Projects

2015-2016 **Hermio.org**, Engineers for a Sustainable World, Team Lead
Co-lead a team to develop low-cost, platform-agnostic data collection tools for low-income users. Awarded a Haas Center Social Impact grant for development and pilot testing in Ghana.

2013-2015 **Medic Mobile**, Engineers for a Sustainable World, Team Lead
Lead a team in collaboration with Medic Mobile to develop interactive web tutorials for an SMS-based healthcare system. Piloted with clinics in Uganda and Malawi.

Selected Audio & Writing Experience

2016-2018 **Stanford Storytelling Project**, Stanford University, Senior Producer
Editor, writer, and audio engineer for *State of the Human,* an hour length narrative podcast.

2017-2018 **Reading After Trump**, Stanford University, Senior Producer
Audio engineer for hour-length podcast from the Stanford English department featuring authors graduate students discussing literature in response to the Trump political administration.

2017 **WNYC**, New York, Production Intern
Primary production intern for *Nancy*, a queer narrative podcast. Additional production work for *2 Dope Queens*, *Note to Self*, and *Sooo Many White Guys*. Data analysis and visualization for the Data News Team.

Arts Honors

2019 Glimmer Train January/February Fiction Open, *Clear*
2016 Kalanithi Fiction Prize, *Parlor Talk*
2014 Stanford Bocock/Guerard Undergraduate Fiction Prize, First Place, *In Residence*
2013 U.S. Presidential Scholar in the Arts, Creative Writing
2012 Poetry Society of the UK Foyle Young Poets Award, Commendation
2011 Scholastic Art and Writing Awards, National Gold Medalist, Fiction

Selected Credits and Publications

2019 Shenandoah, December Issue, *In Residence*
The Cimarron Review, Forthcoming Issue, *Feeding Jobs*

2018 Chicago Quarterly Review, Spring Issue, *Tomorrow Never Knows*
State of the Human, *Broadcasting*, *Survival*, *Conversations, Crossings*, *Navigating*

2017 Nancy, *Fear of Being Butch*
WNYC News, 'Find the Lead-Tainted Water Fountains in NYC Schools'

2013 Popshot Magazine, *Exhilaration* and *Winged*

Projects

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