

# clara wong-fannjiang

clarafy@berkeley.edu | clarafy.github.io

## education

### University of California, Berkeley

2018 - present

Ph.D., Electrical Engineering & Computer Sciences

Advised by Michael I. Jordan and Jennifer Listgarten

### Stanford University

2012 - 2016

B.S., Computer Science with Honors and Distinction

## publications

### preprints

1. Akosua Busia, George E. Dahl, **Clara Fannjiang**, David H. Alexander, Elizabeth Dorfman, Ryan Poplin, Cory Y. McLean, Pi-Chuan Chang, and Mark DePristo. A deep learning approach to pattern recognition for short DNA. DOI: 10.1101/353474. ([bioRxiv](#))

### refereed conferences

1. **Clara Fannjiang** and Jennifer Listgarten. Autofocused oracles for model-based design. To appear in Neural Information Processing Systems (NeurIPS) 2020. ([arXiv](#))
2. David H. Brookes, Akosua Busia, **Clara Fannjiang**, Kevin Murphy, and Jennifer Listgarten. A view of estimation of distribution algorithms through the lens of expectation-maximization. GECCO 2020. ([arXiv \(extended version\)](#) | [proceedings](#))
3. Katherine Lee, Orhan Firat, Ashish Agarwal, **Clara Fannjiang**, and David Sussillo. Hallucinations in neural machine translation. Neural Information Processing Systems (NeurIPS) 2018 Workshop on Interpretability and Robustness for Audio, Speech, and Language. ([PDF](#))

### journals

1. I. Masmitja, J. Navarro, S. Gomariz, J. Aguzzi, B. Kieft, T. O'Reilly, K. Katija, P. J. Bouvet, **C. Fannjiang**, M. Vigo, P. Puig, A. Alcocer, G. Vallicrosa, N. Palomeras, M. Carreras, J. Del-Rio, J. B. Company. Mobile robotic platforms for the acoustic tracking of deep-sea demersal fishery resources. To appear in *Science Robotics*.
2. **Clara Fannjiang**, T. Aran Mooney, Seth Cones, David Mann, K. Alex Shorter, and Kakani Katija. 2019. Augmenting biologging with supervised machine learning to study *in situ* behavior of the medusa *Chrysaora fuscescens*. *Journal of Experimental Biology*, 222, jeb207654. DOI: 10.1242/jeb.207654 ([PDF](#) | [journal link](#) | [code](#))
3. **Clara Fannjiang**. 2013. Optimal arrays for compressed sensing in snapshot-mode radio interferometry. *Astronomy & Astrophysics*, 559, A73. DOI: 10.1051/0004-6361/201321079. ([PDF](#) | [journal link](#))

### other conferences

1. Ivan Masmitja, Spartacus Gomariz, Joaquin Del Rio, Brian Kieft, Tom O'Reilly, Jacobo Aguzzi, Pierre-Jean Bouvet, **Clara Fannjiang**, and Kakani Katija. Area-only method for underwater object tracking using autonomous vehicles. IEEE OCEANS 2019. ([PDF](#) | [proceedings](#))

2. **Clara Fannjiang** and Kakani Katija. Using supervised machine learning to understand fine-scale *in situ* behavior of *Chrysaora fuscescens*. Society for Integrative and Comparative Biology (SICB) 2019 Annual Meeting. Oral, Marlene Zuk Best Student Paper Finalist.
3. **Clara Fannjiang**, Marius Cătălin Iordan, Diane M. Beck, and Fei-Fei Li. Pushing the boundaries of fine-grained object classification with fMRI decoding in human occipito-temporal cortex. Vision Sciences Society (VSS) 2015 Annual Meeting. Poster. DOI: 10.1167/15.12.1167. ([abstract](#))

## professional experience

**Monterey Bay Aquarium Research Institute**, Research Assistant 2018-2019  
 Designed and conducted biologging field experiments on jellyfish in Monterey Bay, CA. Developed supervised learning methods to characterize novel fine-scale *in situ* behavioral and movement patterns.

**Google**, Google Brain Resident 2016-2017  
 Developed regularization schemes for suppressing chaotic dynamics in recurrent neural networks. Contributed to deep learning approach for taxonomic identification of genetic reads.

## teaching

**university of california, berkeley**  
 STAT 102: Data, Inference, and Decisions (Graduate Student Instructor) Fall 2020-2021  
 STAT 102: Data, Inference, and Decisions (Graduate Student Instructor & Guest Lecturer) Spring 2019-2020

**stanford university**  
 EE 364A: Convex Optimization (Teaching Assistant) Winter 2015-2016  
 EE 103: Introduction to Matrix Methods (Teaching Assistant) Fall 2015-2016

## outreach

Jasper Ridge Biological Preserve Docent 2016 - present  
 Stanford Splash! M4053: For the Love of Optimization Co-Instructor Fall 2014  
 Stanford Splash! B4329: The Biology of Vision and Perception Co-Instructor Spring 2015

## honors

NSF Graduate Research Fellowship 2019  
 SICB Marlene Zuk Best Student Paper Finalist 2019  
 SICB Charlotte Mangum Student Support Award 2019  
 UC Berkeley Allen D. Wilson Fellowship (*declined*) 2017  
 UC Berkeley EECS Excellence Award (*declined*) 2017  
 Stanford University President's Award for Excellence in the Freshman Year 2013