CHING FANG

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EDUCATION

Columbia University — Aug 2019-present
PhD candidate in Neurobiology & Behavior
Advisors: Larry Abbott, Dmitriy Aronov

University of California, Berkeley — December 2018
B.A. in Computer Science, B.A. in Molecular & Cell Biology (Honors)

AWARDS

2019 National Science Foundation Graduate Research Fellow

2018 IL Chaikoff Award for excellence in U.C. Berkeley's neuroscience program

2018 Best presentation award for Molecular & Cell Biology undergraduate poster session

2018 Dean's Honors List: in recognition of academic performance

PUBLICATIONS & CONFERENCE POSTERS

Tyulmankov, D.*, **Fang, C.***, Vadaparty, A., and Yang, G.R. (Accepted to *NeurIPS 2021*). Biological key-value memory networks.

Vendrell-Llopis, N., **Fang, C.**, Qu, A., Costa, R., Carmena, J. (journal submission in prep). Brain learns to control pyramidal-tract neurons better than intra-telencephalic neurons in operant learning

Vendrell-Llopis, N., **Fang, C.**, Qu, A., Kitano, M., Costa, R., Carmena, J. Isolating cell-type specific subpopulations of motor cortex neurons during neuroprosthetic learning. In 48th Meeting of the Society for Neuroscience (SfN), (2019).

Fang, C., Laboy-Juarez, K., Feldman, D. (California Cognitive Science Conference 2018) Something

RESEARCH EXPERIENCE

Abbott & Aronov Lab | Columbia Theoretical Neuroscience Center — Aug 2019 - present
· Developing neural network models of episodic memory.

Carmena Lab | Berkeley EECS Department — May 2018 - Aug 2019
· Using two-photon brain-machine interfaces to better understand neuroprosthetic learning in motor cortex.

Feldman Lab | Berkeley Helen Wills Neuroscience Institute   Jan 2015 - May 2018

· Computational modeling of neuron populations and encoding mechanisms in primary somatosensory cortex.

TEACHING ASSISTANTSHIPS

BioE 147/247: Synthetic Biology, UC Berkeley   Aug 2018 - Dec 2018

· Helped manage a hybrid online/in-person class between UC Berkeley and MIT.
· Topics: metabolic engineering, genome engineering, protein and RNA circuits, gene drives

CS 170: Algorithms & Intractable Problems, UC Berkeley   Aug 2017 - Dec 2017

· Developed new course project for a class of 700+ students.
· Led discussion sessions for 60+ students.
· Topics: asymptotics, graph theory, linear and dynamic programming, approximation algorithms

CS 61B: Data Structures, UC Berkeley   Aug 2016 - Aug 2017

· Developed course materials and tests; helped manage course logistics for a class of 300+ students.
· Topics: Java programming, data search structures, graph algorithms, etc.

MENTORING

Jun 2021 - Aug 2021: Desiree Ramirez, undergraduate student, Leadership Alliance Program

OUTREACH

Columbia Neurobiology & Behavior internal award for service in diversity, equity, and inclusion in academic year 2021

Columbia Access Neuroscience: student-faculty working group for diversity initiatives on the undergraduate level

Zuckerman Institute Gender Inclusion (ZIGI) Group

SKILLS

Languages (In order of comfort): Python, Java, Matlab
Miscellaneous: Pytorch, Linux, Git, Arduino, Slurm