

Jiahao Fan

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Educational Background

High School, Xi'an, China

09/2013 – 06/2016

The high school affiliated to Xi'an JiaoTong University

Peking University (PKU), Beijing, China

09/2016- Present

- Double major in Physics and Life Science; GPA: 3.7/4.0
2017 Suzhou Industry Park Scholarship, Peking University.
- 2018 WuSi Scholarship, Peking University.

Research Interests

- Theoretical neuroscience (former)
- Theoretical physics (current)

Supervisor

Chao Tang

- Director at Center for Quantitative Biology at Peking University
- Executive director of the Academy for Advanced Interdisciplinary Studies

Louis Tao

- Faculty at Center for Quantitative Biology at Peking University
- Faculty at Center for Bioinformatics, College of Life Sciences

Dmitri "Mitya" Chklovskii (2019 summer)

- Group leader for neuroscience, Flatiron Institute

Research Experience

Neural network realization of some aspects of temporal difference learning. (modeling)

Advisor: Professor Chao Tang and Louis Tao, Peking University

09/2018-now

- Using Matlab to implement a synfire chain model to realize some aspects of TD-like learning.

Evaluating the Motion Detection Model of flies. (modeling and theoretical work)

Advisor: Professor Dmitri Chklovskii, Flatiron Institute

06/2019-09/2019

- Using Matlab to evaluate the performance of different motion detection models.

Professional Skills

- **Computer skills:** Python, Matlab, a bit R and mathematica

Related Courses Taken

- Computational neuroscience
- Mathematical modeling in biology
- Probability and Statistics
- Method of Mathematical Physics
- Classical Electrodynamics
- Theoretical Mechanics
- Quantum mechanics
- Thermodynamics and Statistical Mechanics
- Reinforcement learning (as an auditor)
- AI algorithm in games