

# Gengshuo TIAN

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## EDUCATION

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- 2015 - present    BSc Candidate in MATHEMATICS AND APPLIED MATHEMATICS, **Beijing Normal University**  
GPA: 96.02 / 100, ranked 1 / 52
- APR-JUN 2018    Exchange Program at **University of California, San Diego**  
GPA: 4.00 / 4.00
- JUL 2017           Summer School in Computational and Applied Mathematics at **Peking University**  
Outstanding student
- JUL-AUG 2016    Summer Sessions at **College of William and Mary**  
GPA: 4.00 / 4.00

## EXPERIENCE

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- Current*  
SEP 2018    Undergraduate research in NEURAL INFORMATION PROCESSING LAB  
at Peking University  
Instructor: Si Wu  
Collaborating with Prof. Yuchao Yang's group on neuromorphic computing with memristors. Also conducting theoretical analysis of a model of balanced orientation selectivity formation in V1 during critical period based on BCM theory with lateral inhibition.
- AUG 2018    Volunteering in COMPUTATIONAL NEUROBIOLOGY LABORATORY  
JUN 2018    at Salk Institute  
Instructor: Terrence Sejnowski  
Worked with Dr. Dongsung Huh to analyze the mechanisms of a spiking neural network trained with gradient descent to do the XOR task. Various techniques including tensor component analysis (TCA) were employed.
- MAR 2018    Undergraduate research in NEURAL INFORMATION PROCESSING LAB  
SEP 2017    at Beijing Normal University  
Instructor: Si Wu  
Participated in the theoretical analysis of a new model of hierarchical memory retrieval with feedback modulation in hierarchical neural networks. The work was based on Hopfield networks but the underlying principles are potentially applicable to other kinds of networks in general.
- JUN 2018    NATIONAL TRAINING PROGRAM OF INNOVATION AND ENTREPRENEURSHIP  
JUN 2017    FOR UNDERGRADUATES  
Instructor: Jingang Xiong  
Studied the asymptotically symmetric solutions of a class of quasilinear elliptic equations.
- NOV 2017    INTERNATIONAL GENETICALLY ENGINEERED MACHINE COMPETITION (iGEM)  
APR 2017    (Team BNU-China)  
Developed mathematical models to assist the team's effort to display fibrous biopolymers on the yeast surface. Modeling work highly regarded by the judges.

## SKILLS

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- Language    TOEFL iBT: 118 / 120  
GRE: Verbal 165 / 170, Quantitative 170 / 170, Analytical Writing 4.5 / 6.0
- Programming    MATLAB