# Gengshuo Tian

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## Education

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| 2015 - present | BSc Candidate in Mathematics and Applied Mathematics, **Beijing Normal University**<br>Gpa: 96.02 / 100, ranked 1 / 52 |
| Apr-Jun 2018 | Exchange Program at **University of California, San Diego**<br>Gpa: 4.00 / 4.00 |
| Jul 2017 | Summer School in Computational and Applied Mathematics at **Peking University**<br>Outstanding student |
| Jul-Aug 2016 | Summer Sessions at **College of William and Mary**<br>Gpa: 4.00 / 4.00 |

## Scholarships and Honors

2016 & 2017 National Scholarship

## Experience

*Current*<br>Sep 2018 | Undergraduate research in Neural Information Processing Lab
at Peking University
Instructor: Si Wu
Working on a tracking algorithm based on balanced networks. Also conducting theoretical analysis of a model of balanced orientation selectivity formation in mouse visual cortex during critical period based on BCM theory with lateral inhibition.

Aug 2018<br>Jun 2018 | Volunteering in Computational Neurobiology Laboratory
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<br>Sep 2017 | Undergraduate research in Neural Information Processing Lab
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<br>Jun 2017 | National Training Program of Innovation and Entrepreneurship
for Undergraduates
Instructor: Jingang Xiong
Studied the asymptotically symmetric solutions of a class of quasilinear elliptic equations through analysis of the corresponding ODE.

Nov 2017<br>Apr 2017 | International Genetically Engineered Machine Competition (iGEM)
(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<br>GRE: Verbal 165 / 170, Quantitative 170 / 170, Analytical Writing 4.5 / 6.0 |
| Programming | MATLAB |