Gengshuo TIAN

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EDUCATION

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

SCHOLARSHIPS AND HONORS

2016 & 2017 National Scholarship

EXPERIENCE

Current Undergraduate research in Neural Information Processing Lab

SEP 2018 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 | 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

Worked on 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 through analysis of the corresponding ODE.

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

Language TOEFL iBT: 118 / 120

GRE: Verbal 165 / 170, Quantitative 170 / 170, Analytical Writing 4.5 / 6.0

Programming MATLAB