

# BAI HEI

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## EDUCATION

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**Peking University(Beijing University)**

Senior Undergraduate

College of Chemistry and Molecular Engineering(CCME)

*Sept. 2015 - July 2019(expected)*

Overall GPA: 3.45/4.00

## RESEARCH EXPERIENCE

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**Influenza**

*Supervisor: Prof. Michael W. Deem*

June 2018 - September 2018

*Rice University, Houston, TX*

- We found a method to predict H3N2 vaccine efficacy just from sequence information and statistical mechanics model. It's a good prediction with an r-squared equals to 0.91.
- I presented a poster about this project in the 4th Annual Smalley-Curl Institute(SCI) Summer Research Colloquium and a paper for it is under writing.

**DNA sequence information**

*Supervisor: Prof. Yiqin Gao*

October 2017-Present

*Peking University, Beijing, China*

- We calculated the long-range correlation of DNA sequences of different creatures to find out the relationship between DNA sequences, chromosome structure and biological properties.
- This project is supported by Beijing Training Program of Innovation and Entrepreneurship for Undergraduates.

**Molecular Modeling for DNA**

*Supervisor: Prof. Yiqin Gao*

April 2017-June 2017

*Peking University, Beijing, China*

- The whole project is aimed to find the mechanism of DNA recognition and catalysis for HHaI, a DNA methylase. I participated in the beginning part to simulate DNA base-flipping use Amber 14.

## TECHNICAL STRENGTHS

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**Computer Languages**

MATLAB, Python, C/C++, FORTRAN, R, Bash

**Software & Tools**

Vim, L<sup>A</sup>T<sub>E</sub>X, Excel, Mathematica

## ENGLISH PROFICIENCY

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**TOEFL** 108/120 (Reading 28, Listening 29, Speaking 24, Writing 27)

**GRE** Verbal 151, Quant 169, AW 3.5

## TEACHING EXPERIENCE

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**Teaching Assistant**

Chemistry Today

CCME, Peking University

Fall 2017

Chemistry Today

CCME, Peking University

Fall 2018

**Volunteer Teacher**

Fine Art

Xiaojiahe Fenghua Primary School, Beijing

Fall 2015-2016

## HONORS & AWARDS

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Award for Academic Excellents

Peking University

2017

The third prize in National College Students Physics Competition

Beijing Physics Society

2016

Youth Award for Athletics

Peking University

2016

## LEADERSHIP & ACTIVITIES

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Director	Weiming Redology Society, PKU	2017-2018
The third winner in Womens 5000-meter race	Peking University	2016
Volunteer for Environmental Protection	Maldives	2016