# Haoran SUN

The world opens itself before those with noble hearts.

# **EDUCATION**

Sept. 2019–June 2023 (expected)

**B.Sc.**, Bioinformacis and mathematics (minor), Chinese university of Hong Kong, Shenzhen (CUHK-Shenzhen).

Major GPA: 3.7, minor GPA: 3.x, cumulative GPA: 3.6

Ranking: 5/35

# SKILLS

Coding langs

Python, Fortran, CUDA C/Fortran

Computer skills

Linux, Git, LATEX

Scientific computing

Numpy, MATLAB

Programming tools

Vim, VSCode, Jupyter Lab

Compt. chem. tools Gaussian, Amber, Gromacs

### TEACHING EXPERIENCES

Sept. 2021-Dec. 2021

**Undergraduate student teaching fellow (USTF)**, Computation Biology (BIM2005), CUHK-Shenzhen, 4 tutorial sessions.

- Tuturial session about how to use molecular docking tool Autodock-vina.
- Tutorial session to help student review basic principles of quantum mechanics and quantum chemistry.
- Tutorial session about mathematical background and hands-on python implementation of principle component decomposition (PCA) algorithm.

Jan. 2022-May 2022

**Undergraduate student teaching fellow (USTF)**, Organic Chemistry (BIO2003), CUHK-Shenzhen, x tutorial sessions.

Tutorial session about...

## Projects

Nov. 2021

Parallel tempering of 1-D particle using Fortran

#### RESEARCH EXPERIENCES

Apr. 2021–May 2023 (expected)

**Research assistant**, Hajime HIRAO's research group, Warshel Institute for Computational Biology.

Computational chemistry/biology, MD simulation, QM/MM

Jan. 2020-Apr. 2021

**Research assistant**, Hsien-da HUANG's research group, Warshel Institute for Computational Biology.

Multi-omics research, expression data analysis

#### RESEARCH INTERESTS

Computational chemistry/biology, development of free-energy calculation and TS-searching algorithms, statistical learning applied on computational chemistry/biology.

#### ACHIEVEMENTS AND HONORS

Sep. 2018

The First prize, Chinese Chemistry Olympiad, provincial level.

Sep. 2019-June 2023

Bowen Scholarship, 30,000 RMB/Year (total 120,000 RMB), CUHK-Shenzhen.

Sep. 2020

Academic Year 2019-20 Dean's List Award, School of Science and Engineering, CUHK-Shenzhen.

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Academic Year 2020-21 Dean's List Award, School of Life and Health Sciences, CUHK-Shenzhen.

Sep. 2021

- Sep. 2021 **The Second prize**, Contemporary Undergraduate Mathematical Contest in Modeling, provincial level.
- Sep. 2022 Academic Year 2021-22 Dean's List Award, School of Life and Health Sciences, CUHK-Shenzhen.

# Language Skills

Chinese (native), English (TOEFL xxx), Japanese (elementary, only be able to read)