Curriculum Vitae

Xiaojie Jin

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Education Experience

September, 2022-Present:

Master of Science: Bioinformatics, UNC Charlotte

Courses taken: Biological Basis of Bioinformatics (A), Statistics (A), Bioinformatics Programming (Python) (A), Design and Implementation of Bioinformatics Databases (A), Molecular Sequence Analysis (A), Machine Learning (A)

September, 2021-July, 2022:

Master of Science: Operations Research and Cybernetics, Shandong University

GPA: 3.5

July, 2019-August, 2019:

Summer school program

University of California, Berkely

Courses taken: Discrete Mathematics (A), Artificial Intelligence (B-)

September, 2016-June, 2020:

Major: Mathematics and Applied Mathematics, Central South University

Degree: Bachelor of Science

GPA: 3.41

Research and Work Experience

September 2022-Present: *Research Assistant focused on Transcription Factor Binding Sites (TFBS) finding of Dr. Zhengchang Su's lab at UNCC*

- Modified the existing motifs finding algorithm using new metric and combinatorial methods to solve low accuracy problems on small datasets and improve sensitivity on binding sites discovery
- Made an analysis of the experimental datasets of transcription factor binding sites from Jaspar, HOCOMOCO, and CIS-BP
- Explored various datasets, including ChIP-Seq and DNase I hypersensitive sites, to

unearth potential co-regulatory transcription factor binding sites

- Helped to make a review of Journal of Evolutionary Biology: TFBS Foot-printer: a multi-omics tool for prediction of transcription factor binding sites in 124 vertebrate species
- Assistant in grant proposal on motif finding section and drew the graph

January 2023-May 2023: *Teaching Assistant in Sequence Analysis at UNCC bioinformatics department*

- Graded assignments and provided support to students in completing Linux-related laboratory projects as a TA
- Addressed student inquiries, contributing to a collaborative and effective learning environment

September 2021-September 2022: *Research Assistant focused on gene assembly of Dr. Guojun Li's lab at Shandong University*

- Engaged in reading papers, participating in group meetings, and attending seminars
- Learned graph-based algorithms and commonly used framework

January 2021-June 2021: *Middle school math teacher at the New Oriental Company*

- Developed teaching skills and learned practical ways to connect with students
- Cultivated the ability to collaborate effectively with fellow educators

September 2019-June 2020: *Research Assistant of Dr. Min Li's lab at Central South University*

- Learned extensively about algorithms for identifying repeat sequences

July 2016-August 2016: *Volunteer teaching in remote rural areas in Jianchuan, Yunnan Province*

- Led the planning and execution of volunteer activities in Jianchuan, Yunnan, a remote rural mountainous area, and implemented engaging activities that help the rural children to understand the outside world better

Award

1. Third prize of university scholarship of Central South University, 2019.
2. Second prize of university scholarship of Central South University, 2018
3. Honorable Mention in *Mathematical Contest in Modeling*, 2018
4. First prize in *Mathematical Modeling Competition of Central South University,*2018
5. Third prize of university scholarship of Central South University, 2017

Skills

Computer skills: C++, Python, R, Linux, Microsoft Office

Language Skills: Mandarin (Native Speaker); English (TOEFL score: 93, National College English Test Band 6 (CET6): 485)